3

1

Spectr. Temp. ....

Focus.....

Spectr. Temp. ....

Exp. Mtr.	Seeing

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... 4.

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality

DAVID DUNLOP OBSERVATORY
74" Logbook
Vol. 78
Plate No. CEO 7814 - CC28343
September 1994 - November 1994

5

pg#1 Fri / Sat

Date 1994 Sep 2/3 Observers K.K.I.T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
CE0781415	inboard/outboard HARTMANN					2 30W	+30°	ThAr	1/1		
16	BIAS (4)	when set at Polaris position									
17	Comp							ThAr	1		
18	HD 8890	01 22 36	+88 46	19 53 29					442	44	
19	Comp							ThAr	1		
20	Comp							ThAr	1		
21	HD 8890			20 04 26		0755E			126	430	2.3"
22	Comp							ThAr	1		
23	HD 8890			20 15 17					103	410	
24	Comp							ThAr	1		
25	BIAS (4)										
26	Comp							ThAr	1		
27	HD ~~187691~~ 187691	19 46 12	+10 10	20 31 38		0037E			713	74	3"
28	Comp							ThAr	1		
29	HD 187691	19 46 12	+10 10	20 45 11					627	74	
30	Comp							ThAr	1		

CCD Spect. Temp. ...

Focus ... 240

CCD Spect. Temp. ...

CCD Spectr. Temp. ...-100°C..... Dome Temp./Hum. 15.0°C 55%H Transparency Conditions P.A.T. cloudy.....

Focus...240..... ** I found out near end of night that I apparently did not set to -100C as intended

CCD Spectr. Temp. ...90.c.gain... Dome Temp./Hum..... 300 ln/mm X c Lambda set to "6" instead of "5".

Comparison Exp.	Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/1					echelle ccd 18.42+.11	.580 W=60u H=400u		6300Å	1/2		CCDFMT for Focus 0 0 125 1024 8 1	
									1		0 0 256 1024 4 1 for Rest	
1									3			
442	44		2	F					4ci	kk tellaric pgm	much cloud	
1									3	comp repeated because of time gap		
1176	430	2-3"							5ci		10K ADU max	
1									3			
103	410								6ci		10K ADU max	
1									3ci			
									1			
1									2c0			
713	74	3"	5.11	F8V					4ci	std vel	≈ 11000 ADU max @ center 1.22 Air mass	
1									3ci			
627	74								5	std vel		
1									3			

7

pg#2

Date 1994 Sep 2/3 Observers KK/Th./KM

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
ce 07831	Comp							ThAr	1		
32	HD 186791	19 41 30	+10 22	21 01 35		00 11E			200s	262	3"
33	Comp							ThAr	1		
34	HD186791			21 07 59		00 04E			196	317	
35	Comp							ThAr	1		
36	BIAS(4)										
37	Comp							ThAr	1		
38	HD173739 ADS11632A	18 41 48	+59 29	21 31 25		01 49W			1805	8	3
39	Comp							ThAr	1		
40	HD 173740	18 41 46	+59 29	22 04 52		02 23 W			1811	15	2½
41	Comp							ThAr	1sq	250	
x 42	HD173739			22 37 58		2 56W			1798	16	
43	Comp							ThAr	1s	320	
44	BIAS(4)										
45	Comp							ThAr	1s		

Spectr. Temp.

Focus 124

Spectr. Temp.

Spectr. Temp. ..... Dome Temp./Hum. +13°C 70% H Transparency Conditions ... clear again ... 8

Focus ... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. 11.8°C 72.6% H

Comparison Exp.	Exp. Mtr.	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1					echelle CCD		$H=\begin{cases}60\mu=277\\400\mu\\=.225\end{cases}$	6300Å	3			
200s	262	3"	272	K3III					4	stellar	5k ADU max	
1									3			
196	317								4	stellar		
1									3			
1												
1805	8	3	8.90	dM4					4c:	KK pgm	≈200 ADU max above background Brighter & North of pair	
1									3c:		≈150 ADU above background	
1811	15	2"-3"	9.69	dM5					5c:		South one of pair (at center)	
1sq	250 max								2c:		11k max	
1798	16		8.90	dM4					4			
1s	320								3c:		12k max	
									1			
1s									3			

9

1993

Date 1994 Sep 2/3 Observers HK/T.A.L.Kan

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
CCD 7846	ADS 13256A	19 56 42	+1028	23 27 41					1320	20	
7847	Comparison							ThAr	1s		
7848	ADS 13256 B			23 52 50		2 53W			1835	7	3"
7849	Comp							ThAr	1s		
7850	HDS 13256 A			00 25 35		3 26W			1813	17	3"
7851	Comp							ThAr	1s		
7852	BIAS(4)							~~ThAr~~	~~1s~~		
7853	Comp							ThAr	1s		
7854	HD 212943	22 22 48	+04 12	01 04 21		1 18 W			600	107	3"
7855	Comp							ThAr	1	484	
7856	HD 212943			01 19 39					674	121	
7857	Comp							ThAr	1	489	
7858	comp								1	505	
7859	ADS 48 A	00 00 12	+45 16 00	01 44 03		0 0 40 W			1832	7	2"
7860	Comp							ThAr	1	512	

Spectr. Temp. ...
Focus ..1240
Spectr. Temp. ...

Spectr. Temp. ..... Dome Temp./Hum. +11.4°C 73% Transparency Conditions .. Fine 10

Focus .. 1240 → increasing cloud

Spectr. Temp. ..... Dome Temp./Hum. +10.8°C 70.9%

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
20		7.60	F2			60μ	6300	3c;	kk pgm	South and Brighter	
7	3"	7.80						4c;		NORTH & fainter	
								2c;			
17	3"-4"	7.60	F2					3c;		Brighter one	
								2c;			
								1c;			
								2c;			
107	3"	479	KOIII-IV					~~6~~	Std Vel	≥ 1400 DOU max	
484								2c;			
~~1274~~		479	KOIII-IV					6c;	Std vel		
489											
~~504~~											
7	2"	8.94	dK6					6c;	KK pgm	≥ 250 AU above background NORTH and only slightly brighter at peak.	
512								2c;			

4 pg# 4

Date 1994 Sep 21 3.... Observers [Kk]./.Km/.Tn.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce07861	ADS48B	00 00 12	+45 16 00	02 16 23					1940
62	Comp							ThAr	1s
63	ADS48A			02 51 00		01 47W			1840
64	Comp							ThAr	1s
65	BIAS(4)								
66	Comp							ThAr	1s
67	ADS 2122A	02 41 48	+18 57 00	03 32 06		00 14E			1804
68	Comp							ThAr	1s
69	ADS 2122B			04 03 48		00 18W			1783
70	Comp							ThAr	1
71	ADS 2122A			04 34 54					
72	Comp								
73	Bias(4)								
74	Comp							ThAr	1
75	HD 8890	01 22 36	+88 46	05 03 49					118

(CI)
Spectr. Temp. ..
Focus....240
Spectr. Temp. ..

Exp. Mtr	Seein
1	2"
1	
35	2"
1	1.5"
180	

CCD

Spectr. Temp. −111.5°C* Dome Temp./Hum. +10.7°C 72.7% Transparency Conditions. Part cloudy 12

Focus .240

Spectr. Temp. Dome Temp./Hum. Actually set to "6" instead of "5" on scale.

*Must have forgotten to set CCDT to −100°C at start of night

Exp. Mtr.	Seeing	Foc. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1	2"	9.04	dM0	echelle CCD 300l/mm 18.42 tilt	.580	60u H=400	6300Å	3c	kk pgm	≤ 200 ADU max above background South one of pair	
								2			
1		8.94	dK6					6c			
								2c			
25	2"	7.40	dF9					5c		≤ 600 ADU max Bright one and South of pair	
								2			
11	<2"	8.20		(Separation ≤ 3.0" but OK separation in guide view)				6c		≤ 200 ADU max above background	
								2			
		7.40	dF9					5c		cloading in here	
~~1~~		2	F					2		Telescope East Side	
180								3			

13

#5

Emulsion Batches: .....

Date 1994 Sep 21/3.... Observers [illegible] Th./K.m.=.Kim Kang Win .....

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Spectr. Temp. ..

Focus...24

CCD ?

Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	Seein
C007876	Comp							ThAr	1s		
77	HD8890	012236	+8846	050920		0126W			132	210	
78	Comp										
79	BIAS(4)										
80 84	FLATS x5			using 100+scale		0233W	+25°	TUNG	1.5se		
85/86	in board/out	Hartmann				0233W	+25	ThAr	1/1		

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Clear in North only 14

Focus ...: 240 .....

Spectr. Temp. ccd ~~Temp~~ ...-11.1°C.. Dome Temp./Hum. +100°C 8127

Exp. Mtr.	Seeing	Ap. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						60μ 400μ	6300Å	2			
210		2	F					3		4 k ADU max	
								2			
					W=	60μ = .277		1c;		MAX 13.5 k ADU	
					H=	500μ = .215					
					H=	500μ	still			Focus FMT 0 0 128 1024 8 1	
	All to Woam & Perseus										

15
pg #1 SAT/SUN

Date 1994 Sep 3/4 Observers [KK] TH / KM

Emulsion Batches:

CCD Spectr. Temp. ...
Focus ... 24
Spectr. Temp. ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	Seeing
CE07887/88	inboard/outboard Hartmann					02 30W	+35°	ThAr	1/1		
89	BIAS(4										
90	Comp							ThAr	1		
91	HD 8890	01 22 36	+88 46	20 1403					100	Bad To Reach	
92	Comp							ThAr	1		
93	HD 8890			20 1913					100	"	
94	Comp							ThAr	1		
95	HD 8890			20 2318		07 41E				"	
96	Comp							ThAr	1		
97	BIAS(4)										
98	Comp							ThAr	1		
99	ADS 12889A	19 41 48	+33 22 00	20 3927		00 04E			1684	3	2.3
CE07900	Comp							ThAr	1		
01	ADS 12889B			21 1011		00 29W			1784	3	
02	Comp							ThAr	1		

CCD
Spectr. Temp. −100°C Dome Temp./Hum. 150 60% H Transparency Conditions Clearing PARTIALLY 16

Focus 240

Spectr. Temp. Dome Temp./Hum.

c 24mBDA

Exp. Mtr.	Seeing	Proj. Mag.	Sp.	Inst. 300l/mm	× Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle 18.42 Tilt	.580	60u=.277 400u=.225	6300Å	1/2		Focus CCD FINT 0 0 128 1024 81	
								1ci		OBSERVING FINT 0 0 256 1024 41	
								2ci			
Too Hard To Reach. noton		2	F					3ci	Kitt pgm	3K ADU max	
								2ci			
"								4ci			
								2c			
"								4ci			
								2			
								1			
								2			
3	<2"-3"	8:30	K3V	OBL sep = 2.5" N/S				5ci		Not sure if it is brighter or. MORE THAN one of Pair >200 ADU above background	
								2			
3		8:40	"					6c.		7250 ADU above background PERHAPS it is the BRIGHTER	
								2			

17

pg #2

Date 1994 Sep 3/4 Observers [illegible] Jr. / Kim

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr	Seein
CE07903	ADS12889A?	19 4/48	+33 22 00	21 4 17		00 48W			1059	2	42
04	Comp							ThAr	1		
05	BIAS(4)										
06	Comp										
07	HD187691	19 46 12	+10 10	220413		00 58 W			617	38	24
08	Comp							ThAr	1		
09	Comp							"	1		
10	HD186791	19 4 30	+10 22	22:19:38					444	9	
11	Comp							ThAr	1		
12	Comp							"	1		
13	HD212943	22 22 48	+04 12	223415		01 01 E			1051	77	33
14	Comp							ThAr	1		
15	BIAS(4)										
16	HD212943			225513		00 45 E			760	81	
17	Comp							ThAr	1		

Spectr. Temp. ..

Focus ... 240

Spectr. Temp. ..

Spectr. Temp. ..... Dome Temp./Hum. +13.2°C 66.9% Transparency Conditions Part cloudy
Focus ... 240 ..... → complete cloud
Spectr. Temp. ..... Dome Temp./Hum. ..... → clearing a bit

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2	2.2"	≈84	≈K?	echelle	W H	60μ 400μ	6300Å	5c;	[≈150 ADU max]	Cloud & end The North and again	
								2c			
								1			
								2			
28	2"	5.11 ~~2.72~~	F8V ~~K3 III~~					3	Std Vel	500 ADU max cloud end	
								2			
								2			
9		2.72	K3III					4	Std Vel	thick cloud. ≈200 ADU max	
								2			
								2			
77	2.3"	4.79	K0III-IV					3c;	Std Vel	>2k ADU max some cloud	
								2			
								1			
81		4.79	K0III-IV					3	Std Vel		
								0			

19

#3

Date 1994 Sep 3/4 ..... Observers [KK]. Ts./. Km .....

Emulsion Batches:

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Spectr. Temp. ...

Focus ...240

Spectr. Temp. ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp. Mtr	Seeing
C ceo7918	Comp							ThAr	1s		
19	HD177724	190049	+134253	231252		0302W			1185	No	2½
20	Comp							ThAr	1s	~~No~~	
21	Comp							ThAr	1s		
22	HD209790	22 00 54	+64 08	233943		0019 W			519	No	* 42"
23	Comp							ThAr	1se		
24	HD209791	22 00 54	+64 08	235040		0048W			157c	73	2"
25	Comp							ThAr	1		
26	HD209790			001802		0106W			103l	14	
27	Comp							ThAr	1		
~~28~~	BIAS										
29	comp							ThAr	1	24	
30	HD 8890	01 22 3½	+88 46 00	004812		-314			193	15	
31	Comp							ThAr	1	No	
32	HD 8890	01 22 3½	+88 46 00	005309		-310			200	15	

Spectr. Temp. ..... Dome Temp./Hum. +12°C 69.6%H Transparency Conditions .Part Cloudy..... 20

Focus ..240.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	× Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle CCD	.580	60u 400u	G300GR	2			
110	2-3"	2.99	AOV m					4	Telluric Std cloudy	Max ~~1500~~ ADU	
~~120~~								2			
								2			
210	*<2"	4.80	A3m	*(very finely separated with EW slit)				5	Kt dbl pgm	*indicated to be done with slit NS. ~2.8K ADU MAX	
								2			
73	2"	5.30	dF9					6		~~1200 ADU max~~ The faintest we are	
								2			
196		4.80	A3m					5			
								2			
								1			
214								2			
415								3		Max 10K ADU	
~~440~~								2			
335								3		Max 7K ADU	

21 #4

Date 1994 Sep 3/4 Observers [illegible]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Foc Mtr	Seeing
ceon9 33	Comp							ThAr	1	-73	
34	HD 88P0	~~01 22 36~~ ~~00 58 03~~	+88 46 00	00:58:03		-03 d 0			232	-80	
35	Comp							ThAr	1	-86	
36	Comp							ThAr	1	-100	
37	HD 3712	00 34 48	+55 59 00	01:09:02	-00 53				146	-72	
38	Comp							ThAr	1	-54	
39	HD 3712	00 34 48 ~~01 13 03~~	+55 59 00	01:13:03		-00 4P 20			160	-20	
40	Comp							ThAr	1	-4	
41	BIAS 4										
42	Comp							ThAr	1		
43	ADS 48 A	00 00 12	+45 16 00	01 38 58		0 26 W			1696	0	1-2
44	Comp							ThAr	1		
45	ADS 48 B	00 00 12	+45 16 00	01 59 08		00 59 W			1795	0	2
46	Comp							ThAr	1		
47	ADS 48 A			02:31:23		01 30 W			1797	0	2
48	Comp										

Spectr. Temp. ...
Focus ... 24
Spectr. Temp. ...

CCD
Spectr. Temp. ...101.7 actual/ Dome Temp./Hum. ..... Transparency Conditions ..Past. Cloudy. - West part 22

Focus ....240.....

Spectr. Temp. ...../..... Dome Temp./Hum. .....

Comparison Filter Exp.	Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1	473				echelle CCD	60μ 400μ		1300	3			
232.	380		2	F					3			
1	486								2			
1	460											
146	412		2,23 ~~3.9~~	K0III 8					4	STD VEL	≃Max 7K ADU	
1	434								2			
100	420		2.23	K0III					4			
1	414								2			
									2/			
1									2			
1	0	1-2"	8.94	dK6					6		~~≃ 250 ADU max~~ a bit of RH proper motion?	
1			~~9.04 dM0~~						2			
1	0	2	9.04	dM0					5		≃ 200 ADU max south, fainter one	
1									2			
1	0	2	8.94	dK6					6			
									2			

23 #5

Date 1994 Sep 3/4 Observers [KH] TA. / KM

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
comp 49	BIAS(4)								
50	comp							ThAr	
51	HD18884	02 57 06	03 42 00	03:14:07		-1.06 E			360
52	comp							ThAr	1
53	HD 18884	02 57 06	03 42 00	03:21:46		-0 01 E			220
54	comp							ThAr	1
55	~~ADS 2122A~~ comp	~~02 41 48~~	~~+18 57~~					ThAr	1
56	ADS 2122A	02 41 48	+18 57	03:33:05		-0 10 E			1644
57	comp							ThAr	1
58	ADS 2122B	02 41 48	+18 57	04:02:46		0021W			1827
59	comp							ThAr	1
60	ADS 2122A	02 41 48	+18 57	04:34:29		00 49W			1644
61	comp					"		ThAr	1sec
62	BIAS(4)					"			
63 69	FLATS x8					00 53W	+20°	THG	1.5s

* one may be a miss fire

Spectr. Temp.
Focus ...24
Spectr. Temp.

Mtr	Seein
324	
301	
218	
217	
10	
09	
5 23	
10	
18 3	

Spectr. Temp. ..... Dome Temp./Hum. +11.0°C 70% Transparency Conditions ... Clear ... 24

Focus ... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. +10.0°C 74%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						60μ 400μ	6300Å	1			
								2			
329		2.53	M1.5IIIa					3	STD VEL	10K Max ADU	
371								2			
268		2.53	M1.5IIIa					3	STD VEL		
413 ~~220~~								2			
								2			
10		7.40	dF9					4	KK pgm	South & brighter → 600 ADU MAX	
479								2			
5	2½"	8.20	—					5		≠ 250 ADU max fainter & north	
413								2			
18	3"	7.40	dF9					4			
								2			
				↓ Side 10 of optical				1ci			
using 100 tscale				Hi to WO2 nr Perseus				2ci	**	one or more may be blank	

Pg #1
125 Sun/Mon

Date 1994 Sep. 4/5 Observers [KK]/Tn/Smt

Emulsion Batches:
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.....
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CD
Spectr. Temp. .
Focus ...124
Spectr. Temp. .

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
CC07970/71	FOCUS TEST INBOARD/OUTBOARD					02 45W	+35°	ThAr		15.5°C	
72	Bias										
73	Comp							ThAr	1		
74	HD8890	01 22 36	+88 46	19 27 45					128	232	
75	Comp							ThAr	1		
76	HD 8890			19 34 12					107	155	
77	Comp							ThAr	1		
78	HD 8890			19 37 49		8 22 E			145	216	
79	COMP							ThAr	1		
80	COMP							ThAr	1		
81	ADS10418A	17 10 06	+143000	19 59 31		1 27W			238	300	3
82	Comp							ThAr	1		
edit 83	ADS10418B	17 10 06	+143000	20 07 09		2 01W			1800	128	3.4
~~84~~	~~Comp~~		Lost, not written					ThAr	1		
84	ADS 10418A			20 34 10		2 07 W			263	230	4"
85	Comp							ThAr	1		

CCD
Spectr. Temp. ...-100°C.... Dome Temp./Hum. 14.9°C / 60.1% Transparency Conditions ...clear.... 26

Focus ...240.....

Spectr. Temp. ..... Dome Temp./Hum. ..... Note found at end of night, that SLIT H was actually set to .220 = 450μ for night

Exp. Mtr.	Seeing	Pix/ Mag.	Sp.	Inst.	Grating/ Tilt	* Slit	Emulsion	P.H.	Program	Remarks	Quality
15.5°C				ECHELLE CCD 18.42	300 ℓ/mm K tilt = .580	60μW 400μH	6300Å			ccdfmt for focus 0 0 128 1024 8 1	
						rotated		1		ccdfmt for observing 0 0 256 1024 4 1	
						90° to		3			
232		2	F			make the slit		4c	KK pgm	max adu ~ 4.6K	
						NS		3			
155								4			
								3			
216								4		max adu ~ 5K	
								3			
								3			
300	3"	3.50	M5Ib					5	KK dbl pgm	5.5K ADU MAX Brighter and west of pair.	
								3			
128	3-4"	5.40	G5 III					6c	KK pgm	2.7K ADU MAX	
								3			
300	4"	3.50	M5Ia					5c	KK pgm	max adu ~ 6K	
								3			

27 pg#2

Date 1994 Sep 4/5 Observers [KK]/Th/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
ce07986	bias(4)										
87	Comp							ThAr	1		
88	HD187691	19 46 12	10 10 00	21 01 35		0			660	58	3"
89	Comp							ThAr	1		
90	Comp							ThAr	1		
91	HD186791	194130	+10 22	21 1757		0 13 W			180	154	2-3
92	Comp							ThAr	1	53	
93	HD 186 791	"	"	21 22 34		0 20 W			310	246	
94	Comp							ThAr	1		
95	Comp							"	1		
96	HD209790	22 0054	+640800	21 4019		01 28 E			1040	315	2-3
97	Comp							ThAr	1		
98	HP209791	"	"	21 5925		0 56 E			1800	27	3"
99	Comp										
ce08000	HD209790	"	"	22 3156		0 35 E			1071	230	

Spectr. Temp. ..... Dome Temp./Hum. 13.5°C 66% Transparency Conditions ..sl. hazy..... 28

Focus ....240.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg/Mag.	Sp.	Inst.	Grating/Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					W H	60μ 400μ	6300Å	1			
						(NS)		2			
58	3"	5.11	F8 V					4	RV Std.	max adu ~ 1800	
			[redacted]								
								3		8K max ADU	
254	2-3"	2.72	K3III					5c	RV std	"	
53											
268		[redacted]						5	RV Std.	10K max adu.	
215	2-3"	4.80	A3m					6	KK dbl	6300 ADU MAX Brighter and East one	
								3			
27	3"	5.30	dF7					4	KK dbl	max adu ~1100 fainter & eastern	
								2			
230		4.80	A3m					6	KK dbl	max ADU ~ 4.5K brighter & eastern	

Pg #3
29

Date 1994 Sep 4/5 Observers [KK]/Th/Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Min.	Seeing
ce08001	Comp							ThAr	1		
02	bias (4)			22 51 45							
03	Comp							ThAr	1		
04	HD201041 ADS14636A	21 02 25	38 15 00	23 06 14		0 59 W			1260	133	
05	Comp							ThAr	1		
06	HD201042 ADS14636B	21 02 26	38 15	23 29 49		1 30 W			1697	79	3"
07	Comp							ThAr	1	48*	
08	~~ADS14636A bias (4)~~	21 02 25	38 15	00 00 59		1 57 W			1338	139	3"
09	Comp							ThAr	1	89	
10	~~ADS14636B~~	21 02 25	38 15	00 25 20		2 21 W			1438	73	3"
11	Comp							ThAr	1	300	
12	~~ADS14636A~~	21 02 25	38 15	00 51 48		2 39 W			902	120	3"
13	Comp							ThAr	1		
14	BIAS (4)										
15	Comp	for HD212943						ThAr	1		

Spectr. Temp. ..... Dome Temp./Hum. 12.0°C / 73.2% Transparency Conditions .. clear but slightly hazy 30

Focus ..... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. +11.1°C / 70.0% H

mparison ter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1					ECHELLE CCD 18.46	300 l/mm x tilt = .580	60 μm W 400 μm H	6300 Å	3			
							(NS)		1			
1									3			
1200	133		5.22	K5V					5	KK pgm.	Also done with E W slit max ADU ~ 4.4K brighter & western HIGH prop	
1									2			
1647	79	3-4"	6.04	K7V					4	KK pgm.	(2.8 K ADU max) fainter & eastern HIGH prop	
1	48 *								3		* 4c 9 K ADU for cog	
1358	139	3-4"	5.22	K5V					5c	KK dbl pgm	≈ 3.8 K ADU MAX	
1	89								3			
1628	93	3"	6.04	K7V					4c		≈ 3.2 K ADU max	
1	300								3		max 8.4 K ADU	
992	120	3-4"	5.22	K5V					5c			
									3			
									1c		CCDT = -101.8°C	
									2			

31
pg 4

Date 1994 Sep 4/5 Observers [KA]/TH

Emulsion Batches:

Spectr. Temp.
Focus 1245
Spectr. Temp.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	Seein
ce08016	HD212943	22 22 48	+04 12	01 14 33		01 37 W			677	63	3"
17	Comp							ThAr	1		
18	HD212943	22 22 48	+04 12	01 27 07		01 51 W			768	55	4"
19	Comp							ThAr	1		
20	Comp							2	2		
21	HD213998	22 30 13	−00 37 59	01 44 23		02 04 W			946	360	4"
22	Comp							ThAr	1s		
23	BIAS(4)										
24	Comp							ThAr	1s		
25	HP188884	02 57 06	+03 42	02 07 41		02 12 E			199	330	3"
26	Comp							ThAr	1s		
27	HD188884			02 12 30		02 07 E			181	366	
28	Comp							ThAr	1s		
29	Comp							ThAr	1s		
30	ADS2122A	02 41 48	+18 57	02 23 18		01 17 E			1667	30	2"
31	~~Comp~~ Comp							ThAr	1s		

Spectr. Temp. ..... Dome Temp./Hum. +11.0°C...70:1%H Transparency Conditions . Sl. hazy 82

Focus ..1240.....

Spectr. Temp. ..... Dome Temp./Hum. +10.7°C. 68.5%H

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst. 300 l/mm echelle	Grating/ Tilt (300 l/mm)	Slit	Emulsion	P.H.	Program	Remarks	Quality
113	3"	4.79	K0 III-IV		580	60μ 40μ (NS orientation)	6360Å	3	Std/vel	≃ 2.6 K ADU max	
55	4"	4.79	K0III-IV					3	std vel		
								2			
								2			
260	4"	4.82	B9 IV-V$_n$					4c.	Telluric Std	Also B/m Cassegrain (established for B4) 3 K ADU max	
								2			
								1			
								2			
≃ 300	3"	2.53	M1.5 III					5c$_0$	Std vel	≃ 10 K ADU max	
								2			
266								5	std vel	≃ 8.5 K max	
								2			
								2			
30	2"	7.40	dF9					3c.	KK dbl.	done also with EW slit ESE and Brighter 700 ADU MAX	

33
pg#5

Date 1994 Sep 4/5 ..... Observers [K.K] . T.H .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CEO 8032	ADS 2122B	02 41 48	+18 57	02 53 32		00 45 E			1768
33	Comp							ThA	1
34	ADS 2122 A	02 41 48	+18 57	03 25 07		00 16 E			1604
35	Comp							ThA	1
36	BIAS (4)								
37	Comp							ThA	1
38	HD 8890	01 22 36	+88 46	04 01 20					140
39	Comp							ThA	1
40	HD 8890	01 22 36	+88 46	04 05 36					116
41	Comp							ThAr	1
42	HD 8890	01 22 36	+88 46	04 08 57					115
43	Comp							ThAr	1
44	HD 8890B	01 22 36	+88 46	04 13 40					1039
45	Comp							ThAr	1
46 51	FLATS x6					0 0	+50°	TungG	2 sec
52	BIAS (4)								

Spectr. Temp. ..
Focus ..! 240
Spectr. Temp. ..

Exp Mtr	Seein
4	2
Guiding	
25	3
200	2
240	
180	
0	1-2
15 sec	100

Spectr. Temp. ..... Dome Temp./Hum. 10.6°C ....69% Transparency Conditions ....Slight hazy.....

Focus ..! 24.0.....

Spectr. Temp. ..... Dome Temp./Hum. +10.3°C ....69.5% All cloudy at end except Polaris Hole

Exp. Mtr.	Seeing	Pow. Mag.	Sp.	Inst.	x Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks (>300 ANY MAX above background)	Quality
4	2"3"	8.20	*?	echelle 18.42	.580 H=450	60	6300	4	KK dbl pgm	Separation for guiding Better than on the X	
← Guiding difficult, but confident that there no "A" contamination								2	*"B" looks Like (G or early K type) E W slit		
25	3"	740	dF7					3Ci			
								2			
								1			
								2			
200	2-3'	2	F					5		5.7 K HDM mgr	
								2			
240								5			
								2			
280								5c		5.2 K mgX	
								2		A 100 ADU above Background,	
0	1-2"	9	VERY easy					6		SW 20" from A	
								2			
using ~~100 scale~~, source final manual (500 on Height)								3Ci		mgX 12 K HDM	
								1			

35

Sun Morning -> through afternoon

Date 1994 Sep 5 ..... Observers Tug .....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison E:
ceo8053 54	FLATs x 2			05		00 00	−33 30	TungG ~~FLAT~~	10s
55	BIAS(4)								~~10~~
56	Comp	~~NMTST.BAT 35~~		2:0535				ThAr	10
57 → 91	Comp	Repeat NMTST.BAT 35		0540 for dark				ThAr	10
92	Comp			184014		00 60	−33 30		
93	Comp			190244	image went ↑	to lower col	#s Rel	tot 3	
94	BIAS((4)			190351					
95	Comp			191152	(image to lower col #s again Rel to previous.				)

Spectr Temp. left

Focus 1240

Spectr Temp.

Temp. Mtr.	Seeing

CCD
Spectr. Temp. left unregulated −115°C Dome Temp./Hum. +10°C .... 69:3%H Transparency Conditions ... Cloudy mornings but High pressure still Today.
@ 0510 EST

Focus ... 1240 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CCDFmT 322 380 85 200 1 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				echelle 1842	1580 W 14	60u 400u SHT	6300Å	3c;	Echelle Nonmotion series	MHX 11 ft ADH	
						N S alignment		1c;			
					90 CCW from NOMINAL			4c;			
					CCD Power cable Facing NORTH			5c;	Dome T = +10.5°C @ 05 H		
		CCDT = −110°C			Dome T = +16°C @ 1844			6c;	After arriving for evening		
c e09092								7	" opening dome shutter		
								1	" Recovering PRIMARY		
		CCDT now −105°C						8			

A very stable High pressure area for whole period.

37

Pg #1 Mon/Tues

Date 1.9.94. Sep. 5/6..... Observers [KK]..J.n/.Scot.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce08096/97	inboard / outboard Hartmann					2 40W	+18°	ThAr	1.4/25
98	BIAS(4)								
99	Comp							ThAr	1s
ce08100	ADS10075 A	16 2430	+18 37	19 5433		2 29W			1260
101	Comp							ThAr	1s
102	ADS10075 B			20 1856		2 53W			1206
103	Comp								1296
104	ADS10075 A			20 4505		3 20W			1296
105	Comp								
106	BIAS(4)								
107	Comp								1
108	ADS10418 A	17 1006	14 30	21 1336					121
109	Comp							ThAr	1
110	ADS10418 B			21 1822		2 57W			666
111	Comp								1

Spectr. Temp. ..
Focus...240
Spectr. Temp. ..

Exp. Mtr	Seein
30	4"
38	4"
24	1"
270	
118	4"

Spectr. Temp. ..... Dome Temp./Hum. +14.7°C ... 55% H Transparency Conditions ... Fine 38

Focus ... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. +14.2 ..... 55.3%

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	X Grating/ Tilt (200 l/mm)	Slit	Emulsion	P.H.	Program	Remarks	Quality
...sing 100 t scale				echelle 18.42 CCD	.580 W .580 H	60u = .277 6300Å 400u = .225		1/2	Outboard · 3 Rel : 0M for brightest	CCD FmT 0 0 128 1024 8 1	
										0 0 256 1024 4 1	
								3c1		WEST & NORTH of Pair	
30	<1"	7.70	K1V	(seems	slightly	brighter star strip)		4c1	K1 dbl pgm	* 1.30 AIR mass Well Resolved (CM 5 sec)	>1000 ADU/sec
								3c1		Not well resolved last night : not done then	
38	<1"-1"	7.80	Looks just like "A" spectrum					5		800 ADU max still good resolution & guiding	
								3			
34	1"	7.70	K1V					4		≈ 900 ADU max above bkgnd	
								3			
270		3.50	M5III					2		8 K ADU max	
								3		1.50 Air mass	
118	<1"	5.40	G5III					4		Sep 4" Very Fine separation again	
								3		2.6 K ADU	

39

pg #1

Date 1994 Sep 5/6 Observers [Erik] Tom/Smyth

Emulsion Batches:

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Spectr. Temp.

Focus 2

Spectr. Temp.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	Seei
ceo8112	ADS10418 A			21 31 15					150	310	
13	Comp							ThAr	1		
14	Comp							ThAr	1		
15	HD161096	17 38 30	04 37 00	21 45 02		2 47 W			171	365	
16	comp							ThAr	1	473	
17	Comp							ThAr	1	582	1.2
18	HD8890	01 22 36	+88 46	22 02 31					96	308	
19	Comp							ThAr	1		
20	HD8890			22 07 13		5 41 E			168	430	
21	Comp							ThAr	1	539	
22	HD8890			22 12 27		5 44 E			107	600	
23	Comp							ThAr	1	627	
24	HD8890 B			22 18 01					1800	19	
25	Comp							ThAr	1		
	[redacted]										
26	HD8890			22 52 21					95	330	

Spectr. Temp. ..... Dome Temp./Hum. 14.0°C / 55.3% Transparency Conditions ... clear!! 40

Focus ..... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
310		3.50	M5 Ib	echelle			6300R	2	KK Agn	~10k max ADU	
								3			
								3			
305		2.77 ~~3.50~~	K2 I ~~M5 Ib~~					4	RV Std	~10k max ADU	
473								3			
382	1-2"							3		Δα +00 20 35 Δδ +00 00 39	
308		2	F					5i	KK	≤11K ADU max	
								3			
330								5	KK	~10k max ADU	
404								3			
300								5	KK	10k max	
877								3			
19								6	KK dbl	~380 max ADU - 200 ave	bg
								3			
								1			
300								5	KK dbl	~12K max ADU	

41 pg #3

Date 1994 Sep 5/6 Observers [KK]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
ceo81 27	Comp							ThAr	1		
28	bias(4)										
29	Comp							ThAr	1		
30	HD187691	19 46 12	10 10 00	23 05 16					905	118	
31	Comp							ThAr	1	8:3	
32	HD187691			23 23 34		2 30 W			840	38	
33	Comp							ThAr	1	4/2	
34	Comp							ThAr	1	5/6	
35	HD186791	19 40 30	10 22 00	23 48 06		2 49 W			190	345	
36	Comp							ThAr	1		
37	~~HD186791~~			23 54 12		2 53 W			172	318	
38	Comp							ThAr	1	4/2	
39	bias(4)			23 59 54							
40	Comp							ThAr			
41	HD209790	22 00 54	+64 08	00 09 29				505	505	170	1"
42	Comp										

Spectr. Temp. .
Focus ... 2440.
Spectr. Temp. .

Spectr. Temp. ..... Dome Temp./Hum. +14.2 ... 53.2% Transparency Conditions .... Fine ..., clear & beautiful.

Focus ... 240 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... C LAMBERT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				echelle 18.42	W 60u H 400u		6300A	3			
								1			
		~~5.7~~	~~K5III~~					3			
118		5.11	F8 V					4	RV STD	max ADU ~ 3200 not the best guiding possible.	
313								3		max ADU ~ 12K	
38								4	RV STD	max ADU ~ 3200 better guiding	
412								3		max ADU ~ 12.2K	
416								3		max ADU ~ 12.4K	
345		2.72	K3III					5	RV STD	max ADU ~ 13K	
								3			
318								5	RV STD	max ADU ~ 15K	
422								3		max ADU ~ 12.5K	
								1			
								3			
170	1"	4.80	A3m					4	KK dbl	57K ADU	
								3			

43 pg 44

Date 1994 Sep 5/6 Observers [KH] Th. I. Sut

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.	Seei
C6408143	HD209791	22 00 54	+64 08	00 20 27		1 20 W			1200	73	4
44	Comp							ThAr	1		
45	HD209790			00 42 35		1 30 W			528	197	
46	Comp							ThAr	1		
47	bias(4)			00 52 58							
C6404 26/27	HD209791	22 00 54	+64 08	00 56		01 36W		2x	.067		4
28/29	"							2x	.067		
48	Comp							ThAr	1	67	
49	HD18884	02 57 06	03 42 00	01 11 06		03 05 E			150	320	
50	Comp							ThAr	1	357	
51	HD18884	02 57 06	03 42 00	01 24 56					184	235	
52	Comp							ThAr	1	445	
53	bias(4)			01 42 39							
54	Comp							ThAr	1	734	
55	AD52396A	03 05 48	36 50	01 47 10		02 10 E			1800	15	

Spectr. Temp.
Focus
Spectr. Temp.

Spectr. Temp. ..... Dome Temp./Hum +13.8°C ..... 54%H Transparency Conditions .. clear 44

Focus .....240.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
73	.5"	5:30	dF7			60u 400u	6300A	5C;	KK dbl pgm	max ADU ~ 2000 above bg	
								3			
197								4	KK dbl pgm	max ADU ~ 5.5K	
								3			
								1/2			
	2"		(Good for echelle scale?)			60u 400u			unoffical seeing test	Faint star on slit -26 saturated	
			"	"					"	both stars straddling the slit	
167		~~4.19~~	~~M1.5III~~					3		max ADU ~ 8K	
320		4.19	M1.5III	exposure meter inconsistent for exposures & comps				4	RV STD	guided on strongest exp. of the set max ADU ~ 10K	
357								3		max ADU ~ 9.6K	
205		4.19	M1.5III					4	RV STD	guided on star centre (1st one saturated) max ADU ~ 12.5K	
445								3		max ADU ~ 9.8K	
								1			
434								3		max ADU ~ 10K	
25		8:1	GO					4	KK dbl	max ADU ~ 700 above bg	

45cm #5

Date 1994 Sep. 5/6 Observers [KK]/Jm/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
ce08156	Comp			~~02 21 3~~				ThAr	1		
57	ADS2390 B	03 05 48	+36 50	02 21 38		1 37 E			1818	29	4½
58	Comp							ThAr	1		
59	ADS2390 A	03 05 48	+36 50	02 56 57		01 02 E			1785	28	4½
60	Comp							ThAr	1	30	
61	bias (4)			03 28							
CG4430	ADS2390 A&B on ~~ce08157~~			.067sec Int.							
~~ce08162~~ 33 →	Comp							ThAr	1		
163	HD8890	01 22 36	88 46 00	03 43 56		00 12 W			148	200	4½
164	Comp							ThAr	1		
65	HD8890			03 49 13					180	158	
66	Comp							ThAr	1	108	
67	HD8890			03 54 30		0 22 W			100	90	
68	Comp							ThAr	1	71	
69	Comp							ThAr	1	141	
70	ADS4200 A	05 30 24	21 56 00	04 03 56		02 29 E			1200	60	

Spectr. Temp. ..... Dome Temp./Hum. 13.4°C / 53.8 % Transparency Conditions . clear ..... 46.

Focus ..... .240 ..... clouding in

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				ECHELLE CCD		60 μm 400 μH	6300 Å	3			
29	<1"	8.3	G0?					5c:	kk dbl	AIRMASS 1.09 max ADU ~ 300 above bg very fine separation	
								3			
28	<1"	8.1	G0?					4	KK dbl.	max ADU ~ 1000 above bg. western & slightly brighter	
270								3			
								1/2			
				For seeing test (Pair above 60μ slit)				3	non standard	seeing test frames 110 FHMS time SE	
200	4"	2	F					4	KK pgm	max ADU ~ 3200 above bg Tel East Side	
								3			
258					Tel E Side			4	KK pgm	max ADU ~ 3500 above bg Tel East side -	
128								3		max ADU ~ 8.5K	
190								4	KK pgm	max ADU ~ 3200 above bg Tel E side	
79								3		max ADU ~ 8.3K	
464					Tel W Side			3	Tel W side	max ADU ~ 10.4K	
16		7.20	F8?					4	kk dbl	max ADU ~ 200 over bg 350 total some time spent adjusting, trying desperately to resolve the pair.	

47 pg #6

Date 1994 Sep 5/6 Observers [KK]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce08171	Comp							ThAr	1
72	ADS4200 B	05 30 24	21 56 00	04 26 33		2 06 E			1200
73	Comp							ThAr	1
74	ADS4200 A	05 30 24	21 56 00	04 49 37		1 46 E			982
75	Comp							ThAr	1
76	bias(4)								
77 - 83	FLATS x 7					02 50W	+8°	TUNG	1.5

Spectr. Temp. ..... Dome Temp./Hum. 11.1°C / 62.2% Transparency Conditions ..few thin clouds..... 48
Focus .....2.40.....
Spectr. Temp. ..... Dome Temp./Hum. +10.7°C / 64.6% clouding in.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
490				ECHELLE CCD 1846	300 l/mm xtilt=.580	60μW 400μH	6300Å	3		max ADU ~ 10K	
14		1.80	F8?					5	KK dbl	max ADU ~ 270 or 100 above bg fainter & eastern	
493								3		getting close to dawn. max ADU ~ 9.8K	
13		1.20	F8?					4	KK dbl.	max ADU ~ 320 or 170 above bg	
495								3		max ADU ~ 9.6K	
								$1e_2$			
	using 100		TSCALE and		manually switched on	A=500nm=.215		3		MAX 13K ADU to 12.9K	

ALL TO WORM & PERSEUS

Date Sept 6 1994 Observers AK-Ri

Emulsion Batches:
.....
.....
.....

Spectr. Temp. .....
Focus .....
Spectr. Temp. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
CE08184	flexure test					09" E		TH Aq	1 sec		
CE08185	"					08" E		TH Aq	2 sec		
6						7					
7						6					
8						5					
9						4					
CE08190						3					
CE08191						2					
2						1					
3						0					
4						1W					
5						2W					
6						3W					
7						4W					
8						5W					
9						6W					

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions 5.0

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Format 00 128 1024 8 1

shift

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1/360				Reticon CCD	300 l/mm x1,H = 50	60μ W 400μ H	6300Å	1		90 ogain	1.53
2/5								2		0 ogain	1.65
								3			1.63
								4			1.49
								5			1.25
								6			.89
								7			.56
								8			.33
								9			.18 .00
											-.04
											.04
											.16
											.15
											.66
											.80

51

Date Sept 7/8 19 94 Observers Hrnl/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
CC2-739/40	Focus Test Comp/STELLAR			~~21:10~~ 22:10	~~21:20~~			FeAr	40/65
41	bias (A)								
42	~~HD147394~~ comp	~~16h 16m 44s~~	~~46° 33' 04"~~					FeAr	60s
43	HD147394	16h 16m 44s	46° 33' 04"	22:29	22:45	5h 16m			90/65
44	comp			22:46				FeAr Clear	60s
	~~HD160762~~	~~17h 36m 38s~~	~~46° 03' 39"~~						
45	bias (4)			23:10					
46-50	flat x 5					0	platform (~~33~~ ?)		

Spectr. Temp. ....
Focus 6.74
Spectr. Temp. ....

Exp Mtr. | Seeing

30.0

telescope

Spectr. Temp. ~~10.7°C~~ Dome Temp./Hum. ~~16.2°C 66.4%~~ Transparency Conditions Cloudy, clearing. about 5% mostly cloudy with holes and fast moving cloud.

Focus 6.74

Spectr. Temp. ..... Dome Temp./Hum. 16.2°C / 66.4% @ end.

4/5 0 50 1024 4 1 coadfast

Exp. Mtr.	Seeing	Pt. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CCD Cass	G=444b 1800	30um	4249BA	3/4	Hmd	FANS OFF	
								1/2			
		~~B V~~	~~B V~~					5	Hmd	~~through fast cloud~~	
30170		3.89	B5 V					6	mean adu 10.1	through fast cloud guiding at best ~1.5"	
								7			
										increasing cloud.	
								1		max ADU ~ 13.1K → 12.1K	
telescope parked. All to dome								8/9		↓	
				Worm Perseus						RAIN! YIKES! focus is same as dome conditions.	

53 pg#1 Thurs/Fri

Date . 1991. Sep. 8/9..... Observers . [Bias]... Tn./Smit.....

Emulsion Batches: .....

.....

Note CSS Time probably fast ~ .6 secs. tonight.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 751 752	Comp/Stellar	Hartman				0009W	+32°	FeAr clear	60s
753	BIAS(4)								
54	Comp							FeAr clear	60
55	HD1061	00 09 50	08 16 00	*20 01 12		04 51 E			1690
56	Comp							FeAr clear	60
57	HD1061			20 33 11					670
58	Comp							FeAr clear	60
59	bias(4)								
60-79	FLAT x20					0	-33°		
80	bias(4)			01 00					
81	Comp							FeAr clear	60s
82	HD 1061	0009 50	08 16 00	01 03 26		0 03 W			1200
83	Comp							FeAr clear	60s
84	Comp							"	4
85	BD+26 3835	20 09 36	+26 27	01 33 09		05 07 W			360
86	Comp							FeAr	60

CCD Spectr. Temp. ...
Focus 6.7
Spectr. Temp. ...

Exp Mtr	Seeing
174	
191	
225	4-6"
374	
1470	
CCD	
1470	
5760	3-5"
249	
1260	4"

Spectr. Temp. CCD -100°C ..... Dome Temp./Hum. 18.2°C / 63.3% Transparency Conditions . partly cloudy . with gradual clearing 54

Focus ..... 6.74 .....

Spectr. Temp. ..... Dome Temp./Hum. 15.1°C / 74.8% @ line 415 O 501024 4 1 CCDFMT (Hotpixel cd 28)
chamber

GREEN FILTER IN EXP. METER (BG39)

Exp. Mtr. (39 Green Filter)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks (Rev 144)	Quality
60/74				CASS CCD	1800 l/mm G=8558	306u	4415A	3/4 c.			
								1			
681								5			
2225	4"-6"	B= 6.15	A9s		S/N ~ 110:1			6	Bln pgm	*clear by 20:15 *Sunsets pracing to 20:15 PART cloudy	
674								7			
1470								6	Bln pgm		
								7			
								8/9/10		clouded in with lightning opened up again. Clearing now	
CCD Temp setting untouched FOR closed period.											
~700								11			
5780	3"-5"	B= 6.15	A9s		S/N ~ 200:1			12	Bln pgm		
749								13			
								14			
1290	4"	8.6-9.3	B8		S/N ~ 85:1			15	Bln Sp Bin	some cloud @ end	
								16			

Pg #255

Date 1994 Sep. 8/9. Observers [Bln]/Tn./Smt.

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc25787	bias(4)								
88	Comp							FeAr clear	60
89	HD1061	00 09 50	+08 16 00	02 34 08		01 26 W			698
90	Comp							FeAr clear	60
91	Comp							"	"
92	HD235679	21 55 00	54 01 00	03 27 54		04 57W			1966
93	Comp							FeAr Clear	60
94	BIAS(4)			04 03					
95	Comp							FeAr Clear	60
96	HD1061	00 09 50	+08 16 00	04 11 14		3 04 W			741
97	Comp							FeAr Clear	60
98	Comp							"	"
99	HD21364	03 21 48	09 23 00	04 31 08		00 03 W			232
cc25800	Comp							FeAr Clear	60
01	BIAS(4)								

Spectr. Temp. ...
Focus 6
Spectr. Temp. ...

Exp Mtr	Seei
1639	
A890	3
1:20	3
1:80	
15 A	

Spectr. Temp. ..... Dome Temp./Hum. 15.1°C/68.5% Transparency Conditions partly cloudy., mostly clear 56

Focus 6.74

Spectr. Temp. ..... Dome Temp./Hum. +13.6°C 69.3% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ central wavelength	P.H.	Program	Remarks	Quality
KG 39 Filter				CASS CCD	1800 l/mm G = 4558	306μ	4475 Å	1			
								17			
4890	3"	B = 6.15	A9s					18	Bln pgm	through some thin cloud	
								19			
								20			
1028	3"	B = 9.21	B2.5 Ib					21	Bln Sp. bin. pgm	had trouble finding ∴ drew updated finder field	
								22			
								1c			
								23			
4880		B = 6.15	A9s					~~18~~	Bln ...	max ADU ~2.5K readout into wrong code.	
								23			
								~~23~~			
15,408		3.66	A9s					24		10k ADU max	
								~~25~~			
								1			

57 Pyx #3

Date 1994 Sep 8/9 Observers [Bln] T.L. Smt

Emulsion Batches:

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Spectr. Temp. ..

Focus ... 6.7

Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	Seein
CG4047 34 37	HD25022	03 5324	+3944	≈0450				4x	67ms		
38 39								2x	133ms		
CG3803	Comp/Stellar Hartman					≈0°	40°	Feb	60/75		

Spectr. Temp. ..... Dome Temp./Hum 13.6°/69.6% Transparency Conditions ... Fine 58

Focus ... 6.74 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						ABOVE 306m	5114		Seeing Test		
									"		
							4475Å				

Pg #159 [Fri/Sat]

Date 1994 Sep. 9/10 Observers [Rm]/Tn/Smt

Emulsion Batches:

CSS 38(Time set to WWV Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC25804/5	FOCUS TEST COMP/STELLAR							FeAr clear	60/65
06	BIAS(4)			19 27					
07	COMP							FeAr clear	60
08	HD173927	18 3920	-20 45	19 3201		00 10 W			1500
09	Comp							FeAr Clear	60
10	Comp							"	"
11	HD180583	19 1200	+2745	20 0611		00 01 E			600
12	Comp							FeAr Clear	60
13	BIAS(4)			20 18					
14	COMP							FeAr clear	60
15	HD331970	20 08 27	+32 34 16	20 24 55		00 19 E			1800
16	COMP							FeAr Clear	60
17	HD331970	20 08 27	+32 3416	21 01 21		00 17 W			1800
18	COMP							FeAr Clear	60
19	BIAS(4)			21 33					

Spectr. Temp. -100.7 Dome Temp./Hum. +14.8°C 58.3%H Transparency Conditions ... Fine ... 60/14.1

Focus ... 6.74 ...

Spectr. Temp. ... Dome Temp./Hum. +12.1°C 66.1%H

DOME FANS OFF

Exp. Mtr. using ORANGE FILTER OG560	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Cl number	~~P.H.~~ Cl	Program	Remarks	Quality
				CASS CCD	1800 l/mm G = 5910	306μ	6400 Å	3/4	FOCUS TEST		
								1/2			
10 983								5			
2944	4"-6"	7.48	G0Ib					6a	Rm pgm	S/N ≲ 300:1 max ADU ~ 6.4K	
11 000								7			
								8			
4300	3"	6.19	F6I -U6					9	Rm pgm	max ADU ~ 8K S/N ~ 320:1 1.49 da period	
								10			
								1/2			
		9.1-9.8						11			
944		~~6.19~~ 6.16	F8-G2Ib					12	Rm pgm	max ADU ~ 1.7K S/N ≈ 160:1	
								13			
959	3"-4"							14	Rm pgm		
								15			
								1/2			

Pg #2 61

Date 1994 Sep 9/10 Observers [Rm]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC25820	COMP							Fe Ar clear	60
21	HD187691	19 46 12	10 10 00	21 39 53		0 52 W			300
22	COMP							Fe Ar clear	60
23	COMP							Fe Ar clear	60
24	HD203156	21 15 23	37 49 00	21 52 14		0 20 E			481
25	COMP							Fe Ar Clear	60
26	COMP							Fe Ar clear	60
27	HD214795	22 36 55	56 18 24	22 13 44		0 59 E			1800
28	COMP							Fe Ar clear	60
29	BIAS(4)			22 46					
30	COMP							Fe Ar Clear	60
31	HD180583	19 12 00	27 45 00	23 06 24		3 00 W			600
32	COMP							Fe Ar clear	60
33	COMP							Fe Ar Clear	60
34	HD177724	19 00 49	13 42 53	23 24 40		3 20 W			70
35	Comp							Fe Ar Clear	60

Spectr. Temp. -99.7°C Dome Temp./Hum. 12.0°C / 66.9% Transparency Conditions clear Pg 42 62

Focus 6.74

Spectr. Temp. ____ Dome Temp./Hum. +10.8°C / 70.8%

Comparison Exp	Exp. Mtr. (WITH ORANGE FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Cl	P.H.	Program	Remarks	Quality
60					CASS CCD	1200 R/mm G=5910	306μ	6400Å	16			
300	4090		5.11	F8V					17	~~Rm pgm~~ RV Std.		
60									18			
60									19			
491	4100		5.8-5.9	F2					20	Rm pgm.		
60	4240								21			
60									22			
1800	1633		8.40	~60Ib					23	Rm pgm.		
60									24			
									1/2			
60									25		reset spec. contr.	
600	4350		6.19	F6I -Ib					26	Rm pgm		
60									27			
60									28			
300	5000 ~~4000~~	3"	2.99	AOIa					29	Tell. Std.	1+6-2 dir modes 1334 x = 10 K AOI.	
60									30			

C3 Pg #3

Date 1994 Sep 9/10 Observers [Rm] V. Tn. / Smt.

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC25836	COMP							FeAr Clear	60s
37	HD222368	233448	+0505	23 3527		01 03 E			160
38	Comp							FeAr Clear	60
39	BIAS(4)			23 40					
40	COMP							FeAr Clear	60s
41	HD223094	23 41 23	28 08 54	23 45 45		00 48 E			844
42	Comp							FeAr Clear	60s
CG40440 → 43	HD223094	234123	+280854			67		4x	67ms
CG40444 45	"	"	"			00 25E		2x	133ms
CC25843 → 862	FLATS x20		Before seeing tests			00 30E	+28°	TUNG Ap 1/4	7sec
CC25863	Comp							FeAr Clear	60s
64	VY Per	02 2019	+582806	00 3428		02 15 E			2400
65	Comp							FeAr Clear	60s
66	BIAS(4)			01 17					
67	VY Per			01 18 48		01 28 E			2435
68	COMP							FeAr Clear	60

Spectr. Temp.
Focus
Spectr. Temp.

Exp. Mtr	Seeing
5400	
4100	3"
4	
318	2-3"
290	3"

Spectr. Temp. -100.0°C Dome Temp./Hum 1.05°C 70.8% H Transparency Conditions ... Fine ... p.# 54
Focus ... 6.74 ... increasing haze
Spectr. Temp. ... Dome Temp./Hum. +1.00°C ... 74% CLIMBDA

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=5910	30μ	6400A	70			
5400		4M3	F7V					60	Std vel	max A00 ~ 13.9K	
								7			
								1/2			
								8			
4100	3"	7.45	K5III					9	RV std.	8.4 K ADU max	
								10			
		7.45	K5III			Above 30μ slit			Seeing Test	DOME SSW No Fans, medium N wind	
								11		MAX = 12 K ADU	
								13			
* partly from SKY 318	2-3"	10.8 -11.66	F5 -F9					14	Rm Pgm	Field checks out well PERHAPS TOO FAINT FOR good signal	S/N ~ 85:1
								15			
								1/2			
290	3"							16	Rm pgm		
								18			

65 Pg #4

Date 1994 SEP. 9/10 Observers [RM]/TN/SMT

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
cc25869	Comp							FeAr clear	60sec		
70	HD25361	03 56 41	+58 23	02 09 36		02 26 E			1800	4200	3"
71	Comp							FeAr Clear	60	3991	
72	BIAS(4)			02 42							
73	COMP							FeAr clear	60	[redacted]	
74	HD203156	21 15 23	37 49 00	02 49 05		04 37 W			500	4200	3"
75	COMP							FeAr clear	60		
76	COMP							FeAr clear	60		
77	HD30282	04 41 05	+36 32 36	03 08 38		02 20 E			1172	4288	3"
78	Comp							FeAr Clear	60s		
79	BIAS(4)			03 31							
80	COMP							FeAr clear	60		
81	HD29587	04 34 30	41 57 00	03 38 48		01 47 E			990	3540	3"
82	Comp							FeAr CLEAR	60		

Spectr. Temp. ..... Dome Temp./Hum. 9.8°C 75% Transparency Conditions ....CLEAR..... pg. # 4

Focus .....6.74.....

Spectr. Temp. ..... Dome Temp./Hum. .....

c LAMBDA

Exp. Mtr.	Seeing	Pkg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	306u	6400Å	19			
4200	3"	7.30 -807	FG 16 -G21b					20	Rm pgm	11K ADU max	
8097								21			
								1/2			
~~HD~~								22			
4200	3"	5.8-5.9	F2					23	Rm pgm	9.7K ADU max	
								24			
			← must be much brighter than this,					25		spec. conts. reset.	
4288	3"	7.9 -88	~~FG~~ -G1 ~~FG~~					26	Rm pgm	9.7K max ADU	
								27			
								1/2			
								28			
2540	3"	7.29	dG2					29	Std vel	5.8K ADU max	
								30			

67 Pg #5

Date 1994 Sep. 9/10 Observers [Rm] / T. / Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Extinction	Seeing
CC25883	COMP							FeAr clear	6s		
84	HD44990	06 1948	+0708	04 03 04		3 10 E			695	4.95	3.4
85	Comp							FeAr clear	60s		
86/87	Comp / Stellar HARTMAN							FeAr clear	60/70		
88	BIAS(4)			04 30		0 0	235°				

Spectr. Temp. -1
Focus 6.74
Spectr. Temp.

Spectr. Temp. −10.7°C actual / Dome Temp./Hum. +9.3°C 76.5% H Transparency Conditions ...Sl. hazy..... PJ. 4.5

Focus ....6.74.....

Spectr. Temp. ..... Dome Temp./Hum. +9.1°C ...78% H

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G-5910	306μ	6400Å	5			
4595	3"4'	6.5 −8.0	F7 Lab −K1 Lab					6c:	Rmpyn	10.6K ADU max 1.85 Airmass	
								7			
	J=+9.2°C							3/4	Focus Test		
								1/2			
		All to	Perseus &	WORM							

69 #1 SAT/Sun — 2 Large Tours - M15 very good + Ring nebula

Date 1994 Sep 10/11 ..... Observers [Blm]. Jn./Sat. .....

Emulsion Batches: .....

Spectr. Temp. ..... Focus ..... Spectr. Temp. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seeing
CG404 46-49	HD 176844	18 57 03	+40 32 3					4x	67ms		
CG404 50-51	HD 176844	"	"	≈1930		00 38 E	+40 41	2x	133ms		3"
Cc25889-90	Comp / Stellar	HARTMAN				00 47W	+54 28	Feat Clear	60/60		
cc25891	Comp							Feat Clear	60s		
92	HDE235679	21 5500	+54 01 00	02 0705		03 58 W			2770	1451	4"
93	Comp							Feat Clear	60s		
94	bias (4)										
95	Comp							Feat Clear	60s		
96	HD 209833	22 01 03	+28 05 84	03 0420		04 14 W			720	4550	4"
97	Comp							Feat Clear	60		
98	Bias (4)										
99-cc25918	FLATS x20			≈0330		02 W	+29°	TUNG Ap 1/4	6s		
19-20	BIAS(4)										
cc259 20-21	Comp / Stellar	HARTMAN				02 W	+29°	FEAT Clear	60/60	T:	+10

CCD
Spectr. Temp. −100°C Dome Temp./Hum. +11.0°C 77.2% H Transparency Conditions Fine/cloudy/clear.

Focus 6.78

Spectr. Temp. Dome Temp./Hum. +10.0°C 80.0% H

Both Fans on 40 mins before seeing Test. Then just NE one for Test.

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter		6.65	M2III			ABOVE 306μ Slit	6604Å		Seeing Test	Before Tours	
	3"								"	Dome WSW medium NNW wind	
				CASS CCD	1800 l/mm G-6065	306μ	6604Å	3/4	focus test	- Then cloud	
				"	"	"	"	5ci	Temp Now	+11.3°C in Dome ~8600 ADU max o H₂ emission	
1351	4"	8.86	B25Ib					6ci	Sp Bin Bln		
								7			
								1½			
								8			
4550	4"	5.63	B9V n					9	Telluric Std	1.56 Air mass	
								10			
								1ci			
								12ci		MAX 13.7K ADU → 13.0K ADU	
T=	+10.0°C							3/4	focus test		

71

PM#1 Sun/Mon

Date 1994.1.1/12 Sept Observers [V.g.s.]/gm/..Km./..Ta...

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC259 22 23	Comp/Stellar	HURT				00	+3846		20/30
24	Comp							FeNe Clear	20s
25	BD+45 2743	18 32 26	+45 39 53	19 31 36		00 15 W			740
26	Comp							FeNe Clear	20s
27	BIAS(4)								
28	Comp					00 16 W		FeNe Clear	20s
29	AC+3 2528-176	18 45 01	+02 58 45	20 02 28		00 49 W		1851	600
30	Comp							FeNe Clear	20s
31	bias								
32	comp					00 55 W		FeNe clear	20s
33	AC+54 1780-45	18 54 12	54 22 09	20 48 29		01 53 W			3221
34	Comp							FeNe Clear	20s
35	BIAS(4)								
36	Comp							FeNe Cloud	20s
37	AC+34 60670	21 32 36	+39 00 29	21 52 38		00 09 E		1941	
38	Comp							FeNe	20

CCD Spectr. Temp. ...

Focus ..6.7.. gain Spectr. Temp. ...

Exp. Mtr	Seeing
CC SBO Filter 3+4	
380	1"
Filter removed	
366	1"
359	1"-2"
355	1"

CCD
Spectr. Temp. −100°C ..... Dome Temp./Hum. +15°C 66% H Transparency Conditions Fine — some haze 72

Focus 6.78 .....

Spectr. ~~Temp.~~ 9.0 c.g.pix ... Dome Temp./Hum. +13.0°C 73.5% H
c Lambda

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASSCCD	1800 l/m G=5115	306μ	5303	3/4			
								5			
OG560 Filter still in											
380	1.5"	9.83	MO					6a	RV std (MARCY)	60/1 S/N	
Filter Removed								7			
								1/2			
								8			
566	1.2"	10.7	M2					9	Vys pgm	60/1 S/N	
								10			
								11		SBIG used Probably 2 secs was best 22RH	
389	1.2"	120	MO					12	Vys pgm	Autoguide 5sec int 40/1 S/N	
								13			
								13			
855	1"	10.7	MO					14	Vys pgm	175/1 S/N	

73

pg #7 Sun/Mon

Date 11/12 Sept. Observers [Vys] pgm/Km/Tn

Emulsion Batches:

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Spectr. Temp. ..

Focus 6:7

Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Fcs Mtr	Seein
CC254 39	Comp							FeNe	20	1.48	
40	AC +7 166 -12	22 05 46	07 24 53	22 36 07		00 19 W			2836	1.16	1-2
41	comp			23 24 44							
42	bias (4)										
43	Comp			23 36 21		~~23 36~~		FeNe Clear	20	1.11	
44	AC +31 68884	22 18 56	31 57 15	23 37 54		00:52 W			1846	1.65	1-2
45	Comp							FeNe Clear	20		
46	Comp							"	20		
47	HD 223094	23 41 23	+28 08 54	00 19 34		E				2.00	1-2
48	Comp							FeNe Clear	20		
49	BIAS(4)										
CG40452 CG 55	HD 223094	23 41 23	+28 08 54					4x	67ms		1-2
CG40456 57	"				=00 24	=00 10E		2x	133ms		
CC25950	Comp							FeNe Clear	20s		
51	HD 216899	22 51 48	+16 02	00 29 46		00 50W			60	1.50	1"
52	Comp								20		

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..Fine.. slight haze.....

Focus .....6.78.....

Spectr. Temp. ..... Dome Temp./Hum. +12°C 82%H

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1645							5303	15			
616	1-2"	10.9	M0					16	Vys pgm	45/1 S/N	
								17			
37172		~~10.7~~	~~M0e~~					18			
565	1-2"	10.7	M0e					19	Vys pgm		
								20			
								21			
≥2000	1-2"	7.45	K5III					2	Std vel	IAU one.	
								22			
								1			
	1-2"	7.45	K5IV		Above 30 for slit				Seeing Test	Very light N wind Dome W SW	
1150	1"	8.66	M2					24	Std vel	(11" ARCY) S/N >100/1	
								25			

75

pg 3

Date . 1994 . Sept 11/12 . . . . . Observers . . Vys . . . Kim . . T.y . . . . . .

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC25953	Comp							FeNe Clear	20s
54	AC+17 303+38	00 03 19	+16 52 12	00 46 44		00 31 W			2750
55	Comp							FeNe Clear	20
56	BIAS (4)			01. 34: 29					
57	comp							FeNe Clear	20
58	AC+9 2-34	00 13 08	+09 38 50	01: 41: 16		01 07 W			2194
59	Comp							FeNe Clear	20
~~60~~ 59A	Flat x10					01 14W	+10 08	TUNG Apl/2	45
70	BIAS (4)								
71/72	Comp / Stellar	HARTMAN				01 14W	+10 08	FeNe Clear	20/30

Spectr. Temp. cal

Focus 6.7

Spectr. Temp. .

Exp Mtr.	Seeing
30	1
33	
574	1½

Spectr. CCD Temp. −100.5 actual Dome Temp./Hum. 11.2°C 82.8% Transparency Conditions .Sl. hazy. - foggy 76

Focus 6.78

Spectr. Temp. ..... Dome Temp./Hum. +10.5°C 89% (LHMEDT)

Exp. Mtr.	Seeing	Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=5115	306a	5303A				
701	1"	1.073	M0					Jbo	Vys pgm	SBIG used 65/1	
36733								27			
								1			
574	1.2"	1.04	M0					29	Vys pgm	≥55/1 S/N	
								31		≥12.8k ADU max	
T= +10.5°C								3/4a	Focus		
					All Warmed			c	Perseid	r	

77 pg#1 Mon/Tues

Date ...1.P.P.4...Sep..12/13 Observers .[Bln]..J.n./..K.m.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc2597~~5~~ 74	Focus Test					0 0	+39°	FeAr Clear	60/90
75	BIAS(4)								
76	Comp			19:43:00				Clear FeAr	60s
~~77~~	BD+26 3835	20 09 36	+26 27	19:46:37		00 33E	~~00 33 E~~	2632→~~39~~	
~~78~~ 78	Comp							FeAr Clear	60s
79	BIAS(4)								
80	Comp							Fe/Ar Clear	60s
81	HD 1061	00 09 50	08 1600	20.53:25		3 43 E			1678
82 83	Comp							FeAr Clear	60s
cc26~~00~~02	FLATS x20					≈320E	+8° 47	TUNG Clear	15s
003	Comp							Fe Ar Clear	60s
004	HD 1061	00 0950	+08 1600	21 53 06		2 54 E			1067
5	Comp							FeAr Clear	60s
6	BIAS(4)								
~~7~~	~~Comp~~	~~for HD 235679~~		No go				FeAr Clear	60s

CCD To
Spectr. Temp. ~-100 °C Dome Temp./Hum. 19.7°C 70.0% Transparency Conditions ... P.&R.T. Cloudy ... 78

Focus ... 6:7.8 ... To increasingly cloudy

Spectr. Temp. ... / ... Dome Temp./Hum. 18.3°C 73.2% 415 0 50 1024 4 1 CCOFMT

Exp. Mtr. Filter	Seeing	Rel. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Green BG 39		B mag		CASS CCD	1800lm/mm G=4558	306m	4475Å	3/4			
								1/2			
								5			
1639	1~2"	8.6 -9.3	B8					6	S B Bkn	≥100/1 S/N	
	~~1~2"~~	~~8.6 -9.3~~	~~B8~~					~~6~~ 7			
								1			
								8			
1560	2-3"	6.15	A9s					9	Bkn pgm	≥90/1 S/N most signal after 21:07 14 count of cloud	
								11			
								12		MAX 11.5K ADU	
								11			
1450	3"	6.15	A9s					13	Bkn pgm	cloud at end	
								14			
								1			
								14			

79

pg 02

Date 1994 Sep 12/13 Observers [Bh] T.n./K.m.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~cc26008~~	~~HD235679~~	~~21 55~~	~~+54 01~~	~~22 20 51~~	No go				
cc26007/08	Comp/Stellar HARTMAN					02 09 E	+8 48	FeAr clear	60/90
cc26009	Comp							FeAr clear	60s
10	HD1061	00 09 50	+8 16	23 04 53		01 37 E			1347
11	Comp							FeAr clear	60s
12	BIAS(4)								
CG40458/61	HD18525	23 03 35	+44 01 14					4x	67ms
CG40462/63	"				23 41	00 16 E	+44 31	2x	133ms
cc26013	Comp							FeAr clear	60s
14	HD1061	00 09 50	+8 16	23 51 30		00 45 E			1657
15	Comp							FeAr clear	60s
16	BIAS(4)								
17	Comp								
18	HD210459	22 05 53	+32 41	00 34 37					369
19	Comp								

CCD

Spectr. Temp.

Focus 6:7

Spectr. Temp.

Exp Mtr	Seeing
1639 Failed	
3690	
1430	
420	

CCD
Spectr. Temp. -100.4 (Actual @ 00130257) Dome Temp./Hum. +18.4°C 73% Transparency Conditions Part. Cloudy 80

Focus 6.78

Spectr. Temp. ..... Dome Temp./Hum. +17.9°C 77% Seeing getting much worse quickly

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~BG 39~~ Filter	1-2"	~~9.21~~	~~B25Ib~~	CASS CCD	1800 l/mm G=~~4558~~	306u	4475Å	15i	~~SB Bln~~ SB Bln	thin cloud here	
	~~1-2"~~	~~9.21~~	~~R~~ T=	+18.2°C				~~15~~ 34	~~SB Bln~~	(Then too cloudy) [Still set for slightly cooler]	
								16i			
3640	2½"	G15	A9s					17i	Bln pgm	150:1 S/N clear whole exposure	
								18			
								1½i			
	3"	G34	A0		Above 306u slit				Seeing Test	Dome WNW	
									" "	medium WSW wind	
								19i			
1430	3-4"	G15	A9s					20i	Bln pgm	some cloud.	
								21			
								1½i			
								22			
420		4.3	F6 II					23	Bln Ashell	Too cloudy	
								24			
									All TO Perseus & WORM		

Pg #1 [Sat/Sun]
81

Date 1914...Sep..17/18.. Observers [Bm]/Smt.....Bln as backup

Emulsion Batches: .....
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Spektr. Temp. ..
Focus.....
Spectr. Temp. ..

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.	Seein
cc26020/21	FOCUS TEST COMP/STELLAR					4 41 W	28°	FeAr clear	60/65		
22	BIAS(4)			00 26							
23	COMP							FeAr clear	60		
24	HD180583	19 12 00	27 45 00	00 32		4 58 W			600	4400	
25	COMP							FeAr clear	60		
26	COMP							F "	"		
27	4021+975	22 36 55	56 18 24			1 49 W			120	151	
28	COMP							FeAr clear	60		
29-34	FLAT x 6					0 PARKED	-34°	Lum 3/4 Aper.	7s		
35	BIAS(4)			01 17							
36/37	FOCUS TEST COMP/STELLAR							FeAr clear	60/65		

Spectr. Temp. ~100.4°C Dome Temp./Hum. 13.0°C / 80.4% Transparency Conditions ... clear..., humid 82

Focus ... 6.74 ...

Spectr. Temp. ... Dome Temp./Hum. ...

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ cl a-b&c	~~P.H.~~ cl	Program	Remarks	Quality
				CASS CCD	600 l/mm G=5910	34μ	6900Å	3/4		ccdfmt 430 0 50 1024 4	
				"	"	"	"	1		ccdfmt 415 0 50 1024 4	
								3			
4400		6.19	F6 I - IIb					4	Rm pgm	max ADU ~ 5000	ATMARS 1.97
								5			
								6			
481		8.40	V601b					7	Rm pgm.	max ADU ~ 840	
								8			
								9		max ADU ~ 13K – 1.5K	
								1			
								10/11			
		All to Persons & WORM									

83 Pg #1 [Sun/Mon]

Date 1994 Sep 18/19 Observers Bln/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp Mir	Seeing
CCD26038/39	FOCUS TEST COMP/STELLAR HARTMANN							Fe Ar clear	30/50		
40	COMP							Fe Ar clear	40		
41	SKY			20 24 13		00 00 26W	44 01 45 N		900	68	
42	BIAS(4)										
43	COMP							Fe Ar clear	60		
44	SKY			21 02		"	"		3600	290	
45	SKY			22 09 18		"	"		3000	240	
46	BIAS(4)			23 00							
47	SKY			23 01 34		"	"		600	50	
48	SKY			23 23 08		"	"		3600	249	
49	BIAS(4)			00 24							
50	COMP							Fe Ar clear	60		
51-53	FLAT x 3							Tung clear	1		
54	BIAS(4)										
55	DARK			01 05 06		00 00 26W	-35°		3600		
56	BIAS(4)					"	"				

Spectr. Temp. ...
Focus ... 6.8
Spectr. Temp. ...

CCD
Spectr. Temp. −100.5°C Dome Temp./Hum. 15.5°C/61.5% Transparency Conditions clear 84

Focus 6.82

Spectr. Temp. ..... Dome Temp./Hum. .....

DOME FANS ON
400 0 50 1024 4 1 ccdfast

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ clear hd	P.H.	Program	Remarks	Quality
				CASS CCD	600 R/mm G=2545	306μ	~~3400Å~~	1/2			
							~3190Å	3			
68								4	Bl/n	dome azimuth 270°, full moon	
										390 0 50 1024 4 1 ccdfast	
					G=2565		3900Å	~~1~~ 1/2			
								3			
290								4	Bl/4	dome azimuth 270°, full moon	
240								4	"	"	
								1/2			
~~2~~ 50								4	Bl/4	"	
249								4	Bl/n	"	
								1/2			
10600								5			
								6		max 400 ~10K	
								3		RUN BY BATCH FILE WHILE TELESCOPE PARKED AFTER CLOSING UP.	
								1/2			

85 Pg#2

Date 1994 Sep. 18/19 Observers [illegible]/Smt Paul Hickey as backup Mki

Emulsion Batches:

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Spectr. Temp. ...

Focus .....

Spectr. Temp. ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.	Seeing
CL26 057	DARK					00 00 26W	-35°		3600		
58	BIAS(4)					"	"				
59	DARK					"	"		3600		
60	BIAS(4)					"	"				

Spectr. Temp. −100-5°C Dome Temp./Hum. 14.0°C / 68.5% Transparency Conditions .. done..closed..... 86

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

DOME FANS OFF

390 0 50 1024 41 ccdfocus

Comparison Filter Exp.	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	Quality
300					CAS5 CCD	600 l/mm G=2565	306μ	3900Å	3		by batch	
									1			
300									3		by batch.	
									1			
					All to WORM & Perseus							

Vg #1 [MON/TVE]

Date 1994 Sep 19/20 Observers KK/KM/SMT

Emulsion Batches:

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..... ND 1.2 filter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
FIT01132	COMP						ND 1.2	FeNe '88 A	200
133	HD194071	20 18 30	27 55 00			0 45 E			1000
134	COMP								200
135	~~SS CYG~~ almost	21 38? 47	43 07? 47	20 30		01 13 E			1281
136	SS CYG	21 38 47	43 01 47	21 01 50		00 33 E			~~1800~~ 1800
137	COMP								200
138	BD+57 2735?	23 19 54	57 20 00	21 54		01 22 E			1800
139	COMP								110
140	HD 216598	22 49 06	37 23 00	22 39 00		00 06 E			1800
141	COMP			23 13 38				FeNe 1/8 up	200
142	HD1326	00 12 58	43 27 44	23 30 00	00 00 00	00 40 E			1800
143	COMP							F3 Ne 1/8 up	200
144	Vys 858 AC+63 32399	23 02 02	63 23 24	00 30		01 32 W			1800
145	COMP								200
146	Vys 304 AC+71 532	00 55 26	71 08 49	01 21 45		0 27 W			1800

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... clear, full moon 88

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 13.1°C / 63.8% FANS OFF

~~Exp. Mtr.~~ Tube Size	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Cl a m b i a	P.H.	Program	Remarks	~~Exp. Mtr.~~ Quality control
				FIBRE-FED PCS	831 l/mm f/1141.0°		6563Å				
8.2 MB											~2500
											30 ~100
0.3 MB											~50
6.2 MB										offsets α -0.5, δ -0.2	~500
											~50
2.0 MB		10.05	M2e						{Uys}		~350
3.9 MB		8.51 -9.39	68V								~800 -900
10.0 MB		8.07	M1Ve								~1600 -2000
						All to WORM & Perseus					
0.9 MB		10.8	M0						{Uys}	strong Hα emission	~150 -200
1.85 MB		10.06	dM4e						{Uys}		~300

89 Pg #2

Date 1994 Sep 14/20 Observers ... Km./Smt.....

Emulsion Batches:

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..... ND 1.2 Filter

Spectr Temp. ...

Focus .....

Spectr. Temp. ...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr	Seeing
CG40464 -67	HD10006	01 32 36	45 50 00						.067		
CG40468/9	"	"	"						.133		
ETO1147	tungsten							A=1/8 ND1.2	7200		
		ALL TO	WORK &	Perseus							

Spectr. Temp. ..... Dome Temp./Hum. 12.8°C/64.6% Transparency Conditions .. clear .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				FIBRE - FES PCS	831 l/mm 41.0° tilt		6563Å		SEEING TEST		
									11		

91 Pg #1

Date 1994 Sep 20/21 Observers Km / Smt ... [KK] & {Vys}

Emulsion Batches: .....
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.....
..... N2 1.2 A; He

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
FIT01148	COMP							FeNe ⅛ Ap.	200
149	Vys 322 BD+68 946	17 36 56	68 24 47	19 15 —		01 50 W	+68°		1800
150	COMP							FeNe ⅛ Ap	200
151	V603 Aquilae? (nova #3)	18 46 24 (1950)	00 32 00	20 04 —					1800
152	" ?	"	"	20 36 —					"
153	COMP							FeNe ⅛ Ap.	200
154	SS Cyg	21 38 47	43 01 42	21 26 39	21 57	03 E			1800
155	COMP							FeNe ⅛ Ap.	200
156	S193	R.A (2000) 21 51 58	Dec (2000) +14 06 54	22 39 10	~~57~~ 58	01 00 W			1800
157	COMP							FeNe ⅛ Ap	200
158	Vys 858 AC+63 32399	23 02 02	63 23 24	23 36 -					1800
159	COMP							FeNe ⅛ Ap	200
160	~~Vys~~ Ross 226	22 50 30	60 28 00	00 24 -					600
161	COMP							FeNe ⅛ Ap	200
162	HD 216 598	22 49 06	37 23 00	00 59 -		02 18 W			1800

Spectr. Temp. ..... Dome Temp./Hum. 19.5°/62.2% Transparency Conditions. clearish, wispy high 92 clouds ~~about~~ around. really good seeing full moon.

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..... DOME FANS OFF

~~Exp. Mtr.~~ TAG SIZE	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ clear/da	P.H.	Program	Remarks	~~Average Quality~~ count
				FIBRE-FED PCS	831 ℓ/mm tilt = 41.0°		6563 Å				
7.6 MB		9.15 ←7.1 →11 or further	M5						{V45}	hard to tell if the emission is probably not but good to take the spec controller reset during 1st attempt	1300 - 1450
0.26 MB									KK	spec. controller reset twice @ beginning	40
0.28 MB									"		50
											2.5
0.35 MB		8.2 - 12.1	Al-dGep						KK		90
0.31 MB.		12.° - 14.°							KK		~~45~~ ~60
2.3 MB!		10 8	M0						{V45}		400
0.15 MB		13.2	M4						{V45}?	no emission spec controller reset.	9 → 70
2.1 MB		8.51 - 9.39	G8 V						KK	eclipsing binary start period of eclipse	1500 → 1450

93 Pg #2

Date 1994 Sep 20/21. Observers [KK]/Km/Smt & {Vys}

Emulsion Batches:

.....

.....

..... NO 1.2 After

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
FITO1163	COMP							FeNe ½ Ap.	200
164	Vys 410A AC+55 19224	02 49 10	+55 02 14	02 47 -		00 03 W			1800
165	Vys 410B AC+55 19225	02 49 12	+55 02 32	03 20 -		00 36 W			1800
166	COMP							FeNe ½ Ap.	200
167	Vys 419AB AC+23 368-59	03 18 13	+23 25 51	04 09 -		00 58 W			1800
168	COMP							FeNe ½ Ap.	200
~~169~~	~~Vys 226 AC+53 2250-45~~	~~03 49 06~~	~~+53 16 23~~						
169	Vys 9 HD 36395	05 26 18	-34 1 00	05 10 -					363
170	COMP							FeNe ½ Ap.	200

Spectr. Temp. ..... Dome Temp./Hum. 17.9°C / 66.4% Transparency Conditions ..clear.. tn 11 moon.....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 15.5°C / 75.9% @ end of night.

DOME FANS OFF BUT NOSEING TEST DONE ∴ OKAY, I THINK. Sat

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Quality~~ Comments
				FIBRE FED PCS	831 ℓ/mm tilt = 41.0°		6563 Å			spec cont. reset.	
3.3 MB		10.5	MO						KK & {Vys}	some emission of some sort. but not Hα.	500 -600
1.1 MB		11.2	MO						"	"	200
1.06 MB		10.47	MO						KK & {Vys}	Hα emission	230 -300
		~~10.5~~	~~MO~~	TOO FAINT NOW.							
3.0 MB		7.97	M1						KK & {Vys}	no Hα emission though there may be other spikes.	3000 -4000
				All to WORM & Perseus.							

95

pg#1

Date 1994 Sep 21/22 Observers KK/Tm/Smt...& Evgs

Emulsion Batches:

.....

.....

.....ND1.2 filter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Exp.
FIT0111 71	Comp							FeNe Y&Ap	200
172	HD 213947	22 29 54	26 05 00	19 13 22		3 26 E			563
173	COMP							FeNe Y&Ap.	200
174	V 603 Aql ?	18 46 24 1950	+00 3200	19 45 52					943
175	V 603 Aql ?	"	"	20 14 17		1 40 W			1800
176	COMP							FeNe Y&Ap.	200
177	SS Cyg	21 38 47	43 07 42	21 00		0 47 E			540
178	COMP							FeNe Y&Ap	200
179	HD 201092	21 02 26	+38 15 00	21 22 28		0 21 W			1200
180	COMP							FeNe Y&Ap	200
181	AC +39 Vgs 836 AB 60670	21 32 36	+39 00 29	21 58		0 38 W			1800
182	Comp							FeNe Y&A	200
183	HD 213947	22 29 54	26 05 00	22 44		0 06 W			616
184	COMP							FeNe Y&Ap	200
185	HD 223094	~~23 00 00~~ 23 41 30	+28 09 00	23 06 20		0 34 E			1201

Spectr. Temp. ..... Dome Temp./Hum. +18.7°C..64%H Transparency Conditions . clear...full moon...windy. 46

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS OFF

CSS 386 about 15 sec ahead of UBM

Exp. Mtr. TUG SIZE	Seeing	Pr. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Fiber tool PCS	831 ℓ/mm tilt = 41.0°	7×50μ	6563Å				
~~41.5MB~~		7.53	K4III						RV Std.		3000 100 bg
98KB									KK	some uncertainty - not showing too much emission	46 ~~3~~ bg
214KB									KK	less uncertainty, now showing emission now.	40 3 bg
											40 3 bg
38KB									KK		
"										~ 240/hr	
—		6.3	K7V						KK Hα	STD ~~neutral density filter 0.6~~	1500 40 bg
1.25MB	3"	10.17	M0						Vgs pgm	no emission, I don't think.	A 250 B 5
		~~7.53~~	~~K4III~~								
—		7.53	K4III						RV STD	same as above, ags.	3000 100 bg
—		7.45	K5III						RV STD		

97
Pg # 2

Date 1994 Sep 21/22 Observers Km/Tn/Smt [KK] & {Vys}

Emulsion Batches:
.....
.....
..... ND1.2 filter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
FIT01186	COMP							FeNe ½ Ap	200
187	Vys 858 AC+63 32399	23 02 02	63 23 24	23 47 20		0 57 W			1800
188	COMP							FeNe ½ Ap	200
189	HD 216598	22 49 06	37 23 00	00 32		01 55 W			1800
190	Comp							FeNe ½ Ap	200
191	Vys 84 BD+40 45	00 11 52	+40 23 33	01 09					600
192	COMP							FeNe ½ Ap	200
193	Vys 99 AC+45 130-26	03 02 48	+45 21 19	01 37		1 15 E			1800
194	COMP							FeNe ½ Ap	200
195	FLAT							Tung ½ Ap	7200

Spectr. Te
Focus
Spectr. Te
Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. +15.4°C 82% H Transparency Conditions. clear, ..foggy. slightly 98

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +14.8°C 88% H FANS OFF

Exp. Mtr.	Seeing	Pg/ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Fiber fed PCS	831 l/mm 41.0°		6563Å				
1.24 mB									{Uys}	strong Hα emission	200-
3.6 mB	3"	8.51 -9.51	G8V						Kk ec/Bin		600/se
											a 200/se
1.95 mB		9.00	M0						Vys pgm		800
2.74 mB		10.2	M0						{Vys}		400
										97% cat wk, done wet fog in S. close.	
			All to WORM & Perseus. except 195								

99 Pg#1 Thurs/Fri

Date 1994 Sep 22/23 Observers T.n./Smt [Rm]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Disp Mtr.	Sec
CG40471 -74	HD176844	18 57 03	+40 32 36						.067		
FCG40475/76	"								.133		
cc2606162	Comp / Stellar Hartmann					00 50 W	+2756	FeAr Clear	60/70		
63	BIAS(4)			20 00 16							
64	COMP							FeAr Clear	60		
65	HD180583	19 12 00	+27 45 00	20 32 26		01 17 W			660	5000	
66	COMP							FeAr Clear	60		
67	BIAS(4)			20 47 54							
68	COMP							FeAr Clear	60s		
69	HD214975	22 36 55	+56 18 24	20 56 06		01 20 E			2063		
70	Comp							FeAr Clear	60s		
71	BIAS(4)			21 33 25							
72	Comp							FeAr Clear	60s		
73	HD331970	20 08 27	+32 34 16	21 46 01		01 58 W			2058	1630	
74	COMP							FeAr Clear	60		
75	Comp							"	"		

CCD Spectr. Temp. −100.4°C Dome Temp./Hum. 17°C 77%H Transparency Conditions. ~~Cl.~~ mostly cloudy 100

Focus ~~6.50~~ 6.75

Spectr. Temp. 90 gain Dome Temp./Hum. 15.6°C 77%H (LAMBDA)

415 0 50 1024 41 ccdfast

NE FAN ON.

Comparison Filter	Exp.	Exp. Mtr.	Seeing	~~V Pig.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~Pdt.~~ Ci	Program	Remarks	Quality
		No filter FOR Eq marker		6.65	M2 III	CASS CCD	1800 ℓ/mm G=5910	306μ	6400Å		SEEING TEST	DOME IN, CLOUDY, MEDIUM E WIND, ARRAY 306μ.	
		"		"	"						"		
										3/4c:	Focus test		
										1/2			
	60									5			
	60	5000		6.19	F6I-IIb					6	Rm P6M	through some cloud now beginning. max 400 ~64K	S/N ~ 260:1
	60									7			
										1/2			
	60									8			
	200	reset itself at some point	3"	⟨V⟩ = 8.40	Eq ~ G0Ib					9	Rm P6M	Some cloud	S/N ~ 200:1
	60									10			
										1/2			
	60									11			
	205	1630	2-3"	⟨V⟩ = 9.1-9.9	F8-G2Ib					12	Rm P6M	some cloud again	S/N 160/1
	60									13			
										1/4			

101 pg #2

Emulsion Batches: .....

Date 1994 Sept. 22/23 Observers [R.m.] T.m./Sm.t. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26076	HD 203156	21 15 23	+37 49	22 28 04		01 27 W			294
77	Comp							FeAr Clear	60s
78	BIAS(4)			22 35 47					
79	Comp							FeAr Clear	60s
80	HD 187691	19 46 12	+10 10 00	22 40 55		02 43 W			191
81	Comp							FeAr Clear	60s
82	HD 213014	22 ~~19 56~~ 23 24	~~+17 11 01~~ 16 46 00	23 10 03		0 97 W			900
83	COMP							FeAr Clear	60s
84	COMP							"	"
85	HD 180 583	19 12 00	27 45 00	23 37 17		04 24 W			660
86	COMP							FeAr Clear	60
87	BIAS(4)			23 51 12					
~~88~~	COMP							FeAr Clear	60
89	HD 214975	22 36 55	56 18 24	23 58 34		01 38 W			1200
90	COMP							FeAr Clear	60

CCD
Spectr. Temp. −100.4°C Dome Temp./Hum. 15.0°C / 84.7% Transparency Conditions Poor. Cloudy 102

Focus 6.25

Spectr. Temp. 90 gain Dome Temp./Hum.

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion Cassida	P.H.	Program	Remarks	Quality
5180	3"	5.8 −5.9	F2	CASS CCD	1800 l/mm G=5910	306	6400Å	15.	Rm pgm	MAX ≈ 6700 ADU	
								16			
								16			
								17			
5690	3"-4"	5.11	F8V					18	Std vel	no second comp written. sorry.	
								19		comp for HD213614!	
2730		7.70	d68					20	RV Std	DOUBLE STAR AS RV STD?	
								21			
								22			
8000		6.19	F6 I -IIb					23	Rm PGM	max ADU ~ 8K	
								24			
								25			
3190		⟨v⟩= 8.40	spv G0Ib					26	Rm PGM		
								27			

103 pg #3

Date 1994 ~~Sep~~ 22/23 Observers [Rm] Tn/Smt

Emulsion Batches:
.....
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CG 40470 ~~70~~ 77→80 ~~CG 40480~~	HD 3765	00 35 18	+39 40 00						.067
CG 40480 –82	"								.133
CC 26091	BIAS(4)			00 46 45					
92	COMP							Fe Ar clear	60
93	HD 3765	00 35 18	+39 40 00	00 50 04		0 23 W			1400
~~94~~	COMP							Fe Ar clear	60
95	COMP							"	"
96	HD ~~4055~~ 204837	22 01 03 ~~07 01 82~~	+28 48 41 ~~+35 23 05~~	01 22 21		03 13 W			360
97	COMP							Fe Ar clear	60
" ~~"~~	~~BIAS(4)~~	"	"	"	"	"	~~0 0~~	~~–8°~~ "	"
98–107	FLATS ×10					0 0	–8	Tung Yu Ap	1 s.
108	BIAS(4)			01 39 40					
109/110	COMP/STELLAR HARTMANN					0	38	Fe Ar clear	60/70

CCD
Spectr. Temp. -100.4°C Dome Temp./Hum. 14.8°C / 84.5% Transparency Conditions .. clear with some cloudy patches.

Focus ..... 6.75 .....

Spectr. Temp. ..... Dome Temp./Hum. +14.1°C 85.5%

Exp. Mtr.	Seeing	✓ ~~Pig.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		7.36	dK5	CASS CCD	1800h/mm 6 = 5410	30μ	6400Å	—	SEEING TEST	LIGHT W, MED. E WIND PATCHY CLOUDY. above sht.	
		"	"					—	"	some cloud to look through	
								1/2			
								28			
1860		7.36	dK5					29	RV STD.	some cloud.	
								30			
		~~5.63~~	~~B&Sh~~					5			
~~E85600~~		5.63	B&Sh					6	Telluric STD.	max ADU ~ 62	
								7		humidity >95% cotwalk, some	
/	/	/	/	/	/	/	/	~~Hgd~~	/	/ CLOSED UP. /	
								8		max ADU ~ 12.8K - 12K	
								1/2			
								?	FOCUS TEST		
			All to Perseus & WORM.								

105
Pg # 1

Date 1994 Sep 27/28 Observers KK/Km/Smt

Emulsion Batches:
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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
RF00100	FLAT			12 36				Tung clear	~~50~~	
101	COMP							FeNe clear	20s	
102	DARK								180	
103	COMP							FeNe Clear	20s	
104	HD217675	22 57 19	+41 47 00	~~22~~ ~~30 10~~	22 30 10				1354s	~100
105	COMP							FeNe clear	20s	
106-9	FLAT x 4							Tung clear	~~50~~ s	

Spectr. Tem
Focus.....
Spectr. Tem

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..mostly cloudy.....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				FIBRE-FED RETICON	831 ℓ/mm 41.0° = tilt	pinhole	6560 Å				
~7000		~3'	B6°							through cloud - weak exposure	

All to Parsons & WORM
(as RE00...) (as RF00...)

107 Pg# 21

Date 1994 Sep 28/29 Observers KK/Km/Smt

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
RF00110	FLAT							Tung clear	50s	
111	COMP							FeNe clear	20s	
112	HD217675	22 57 19	41 47 00		21 53 04				875	17000
113	COMP							FeNe clear	20s	
114	HD217675	"	"		22 21 10				1489	17860
115	COMP							FeNe clear	20s	
116	HD172167	18 33 33	38 41 00		22 34 32				294	3540
~~117~~	~~COMP~~							FeNe clear	20s	
118	COMP with telescope moving for comparison							"	"	
119-121	FLATS							TUNG CLEAR	50s	
122-123	Darks (short)								1s	
124	DARK								3600s	

Spectr. Temp. ..... Dome Temp./Hum. ~~.....~~ / .. Transparency Conditions rainy. Then CLEAR. Then
11.3°C/84.4% cloudy N – still wet.

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..... high gain, heater thermostat control off.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				FIBRE-FED REFICON	831 l/mm 41.0°	20 μ pinhole	6560 Å				
12000		3.63	B6p						Be	through considerable cloud	250
12860		"	"							"	270
50 000		0.0	AOT						Std.	"	1400
										with grating covered.	
				All to WORM							
				Some to Perseus as of Sep 30/94							

109 9 #1

Date 1994 Sep. 29/30. Observers Km/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
KF00125	FLAT							Tung clear	50s
126	COMP			0 13 37				FeNe clear	20s
127	HD217675	22 57 19	41 47 00	0 21 59	0 45 24	02 01 W			
128	COMP			0 48 17				FeNe clear	20s
129	HD217675	"	"	0 50 11	01 16 08	02 32 W			
130	COMP			01 17 18				FeNe clear	20s
131	HD 3712	00 34 48	55 59 00	01 24 38	01 34 35	01 12 W			
132	COMP			01 36 30				FeNe clear	20s
133	HD172167	18 33 33	38 41 00	01 50 16	01 54 55	07 37 W			
134	COMP			01 56 43				FeNe clear	20s
135	HD217675	22 57 19	41 47 00	02 04 46	02 25 57	03 42 W			
136	COMP							FeNe clear	20
137	HD217675	"	"	02 30 58	02 59 08	04 16 W			
138	COMP			03 00 20				FeNe clear	20
139-143	FLAT x 5					04 19 W	42°	Tung clear	50
144-148	DARK x 2 (SHORT) + DARK (LONG)								1s/2s

Spectr. Tem
Focus
Spectr. Tem

Exp Mtr.

Forest light
around 26
26-000 + 1500

45 000

5 000

5 000

3 000

45 000

Spectr. Temp. ..... Dome Temp./Hum. 9.1°C / 70.8% Transparency Conditions Clear! ... seeing not so great since it just cleared quickly

Focus ..... yes, in focus .....

Spectr. Temp. ..... Dome Temp./Hum. 7.5°C / 78.2% @ 02:20 FANS OFF

Exp. Mtr.	Seeing	V Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				FIBRE-FED RETICON	831 l/mm 41.0°	pinhole	6560 Å			dip heater thermostat off	
rocket itself @ around 29 000 to 20 000 + 5000		3.63	B6p						Be?		
										chip heater thermostat on.	
45 000		"	"						Be?		
50 000		2.23	K0III						RV Std.	through some cloud. increasing cloud now in E	
50 000		0.0	A0 II			tel. E of piers.			Std.		
							"				
70 000		3.63	B6p			tel. E side of piers			Be?		
							"				
45 000		"	"			tel. E side of piers			Be?		
							"				
							"			clock drive turned off.	
		All to WORM but RF00146 None to Perseus as of Sept 30/94								chip heater thermostat turned off for long last K dwarf had grayish colour and spectrum was marked.	

"Pg #1 [Fri/Sat]

Date 1994 ~~Sep 30~~/Oct 1 Observers [Blm]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc261 11/12	FOCUS TEST COMP/STELLAR	[noticed that grating handle was up, upon closing]				01 W	+3846	FeAr Clear	40/70

Spectr. Temp. -100.5°C ..... Dome Temp./Hum. 12.0°C / 72.6% Transparency Conditions . partly cloudy → increasing cloud

Focus ... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

c LAMBERT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
T = +11.7°C				CASC CCD	1800 l/mm	306μ	4475Å	3/4	FOCUS TEST	THEN CLOSED UP -	

113
pg #1 SAT Sun. CSS 386 Time Reset 1st

Emulsion Batches: .....

Date 1994 Oct 1/2 Observers [Bln]/Tn/Smt ....

2 Large viewing Tours .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.(s)
CC26113	BIAS(4)								
M/15	COMP/STELLAR HARTMANN					0 16 W	+39°		
16	COMP							Fe Ar clear	60
17	HD1061	00 09 50	08 16 00	22 34 55		00 58 E			999
18	Comp							Fe Ar clear	60s
19	Comp							"	"
20	BD+26 3835	20 09 36	+26 27 00	23 01 59		?			2316
21	COMP							Fe Ar clear	60
22	BIAS(4)			23 43					
23	Comp			23 49				Fe Ar clear	60
24	HD1061	00 09 50	08 16 00	23 49 31		0 16 W			934
25	Comp							Fe Ar clear	60
26	COMP							"	"
27	HDE235679	21 55 00	+54 01 00	00 17 10		03 34 W			3013
28	COMP							Fe Ar clear	60

Spectr. Temp. -100.4°C Dome Temp./Hum. 9.0°C/85.2% Transparency Conditions clear & humid 114
Focus 6.85 bad seeing
Spectr. Temp. ..... Dome Temp./Hum. .....
4430 0 ~~4250~~ 50 1024 41 ccd

Exp. Mtr. & Filter	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	P.H.	Program	Remarks	Quality
				LASS CCD	1800 gr/mm 6 = 4558	306μ	4475Å	1/2			
								3/4	FOCUS TEST		
								5			
*No Filter 12,200	5-6"	m_{pg} = 6.15	A9s					6	Bln pgm	≈ 16th column centered should be more like 20 col • stitt avoid hot pixel	S/N ~ 200:1
								7			
								8			
B6 39 Filter in 1500		B86 −9.3	B8					9	Bln ORVul pgm	~70:1 S/N	
								10			
								1/2			
								11			
6600		m_{pg} = 6.15	A9s					12	Bln pgm		S/N ~ 200:1
								13			
								14			
REST FRAME 1430 + 230		B = 9.21	B2.5Ib					15	Bln pgm		S/N < 100:1
								16			

115 Pg. #2

Date 1994 Oct 1/2 Observers [Bln]/Tn./Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Temp / Focus / Spectr. Temp Exc. Mtr	S
CC26129	BIAS(4)									B639	
30	COMP							FeAr clear	60		
31	HD1061	00 09 50	08 16 00	01 16 17		1 45 W			1092	7750	
32	COMP							FeAr clear	60		
CG 40485 -88	HD130113	02 02 18	+43 59 07					4x	.067s		
89 90	"	"	"		01 48			2x	.133		
CC26133	COMP							FeAr clear	60		
34	HD21364	03 21 48	+09 23 00	01 55 17		1 02 E			237	15000	
35	COMP							FeAr clear	60		
36	BIAS(4)										
37	COMP							FeAr clear	60		
38	HD1061	00 09 50	08 16 00	02 07 12		2 36 W			1075	6700	
39	COMP							FeAr clear	60		
40	Comp							"	60		
41	HD217675	22 57 19	41 47 00	02 31 39		3 58 W			132	9500	
42	Comp							FeAr clear	60		

Spectr. Temp. ..... Dome Temp./Hum. 7.5°C / 79.6% Transparency Conditions .. clear 116

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. +7.2°C 83.2%H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG39				CASS CCD	1800 l/mm G=4558	306μ	4475Å	1/2			
								17			
7300	5"	Mpg = 6.15	A9s					18	Bln pgm	>200 I/I S/N	
								19			
	5"	V 640	G8III					—	Seeing Test	red NW a 7d. done with no fans	
	"	"	"					—	" "	Cold clear AIR moving in tonight.	
								20			
15000		B = 3.66	B8p					21	Bln pgm		
								22			
								1/2			
								8			
6700		Mpg = 6.15	A9s					12	Bln pgm		
								13			
								14			
9500		B 3.63	B6p					15	Rg 0 And Request	MH X 4600 ADU - I know Vds not H8)	
								16		4471Å abs strong	

117
pg#3

Date 1994 Oct 12 Observers [Blg] / Tn / Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc26143	BIAS(4)								
44	Comp							Feather Clear	60
45	HD1061	00 09 50	+8 16 00	02 43 27		3 13 W			1129
46	Comp							Feather Clear	60
47	Comp							"	"
48	HD37017	05 30 25	-04 34 00	03 10 43		1 40 E			1122
49	COMP							Feather Clear	60
50	BIAS(4)								
51	COMP							Feather Clear	60
52	HD1061	00 09 50	+8 16 00	03 37 39		4 07 W			1095
53	COMP							Feather clear	60
54	COMP							"	"
55	HD217675	22 51 19	+41 47 00	04 02 15		5 29 W			132
56	COMP							Feather Clear	60
51 - 76	FLAT x 20					5 33 W	+42 20	Tung Clear	15

Spectr. Temp. ..... Dome Temp./Hum. +7.3°C 82.8% H Transparency Conditions ... Fine 118

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. +6.6°C 74.8% H .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
BG39 Filter				CASS	1800 G 4558	306m	4475H	1/2			
								17			
8000	8"-5"	6.15	A9s					18	Bln dbl pgm		
								19			
								20			
4900	~6"	6.56	B2V					21	Bln pgm.	Most Southerly of Rich field.	
								22			
								1/2			
								22			
5880	~6"	Mtg = 6.15	A9s					12	Bln pgm.		
								13			
								13			
6600		6.56	B6p					14	○ Andromeda (4471 He strong abs.)		
								16			
								17		using ~~FQFLAT.BAT~~ FLAT15.BAT MAX ≥ 9-10K ADU →	

11a
pg # 4

Date 1994 Oct 1/2 Observers [Bln] / Tn / Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	(s) Exp.
CC26177	COMP							Fe Ar Clear	60
78	HD217675	22 57 19	41 47 00	04 26 23		05 54 W			183
79	COMP							Fe Ar Clear	60
80	BIAS(4)								
81	COMP							"	"
82	HD14386	02 14 18	-03 26	04 45 43		3 17 W			447
83	COMP							Fe Ar Clear	60
84-88	FLAT x 5					00 00	+12 46	Tung Clear	22
89	BIAS(4)								
90/91	COMP/STELLAR	HARTMANN				0	43°		40/70

Spectr. Temp. ..... Dome Temp./Hum. 7.0°C / 11.6% Transparency Conditions . Clear 120

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. 15.8°C 74%

LAMBDA = H & Region

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1600 l/mm 6 = 4446	306μ	4298Å	5			
8960		B.65	Bkp					6	Rg Request		
								7			
								7			
1320	6"-8"	V= 2.0 -10	gMbe					8	~~Rg~~ rG	Mira near H &	
								10			
								11		max ADO ~ 11.5k - 10.9k	
								1/2			
	+5.8°C							3/4	FOCUS TEST		
										CCD T = -100.2°C	
			All to WORM & Perseus								

Pg #1 [Sun/Mon]

Date 1994 Oct 2/3 Observers [Bln]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26194/93	COMP/STELLAR	HARTMANN						Fe Ar Clear	60/60
94	BIAS(4)			18 44 39					
95	COMP							Fe Ar Clear	60
96	HD172167	18h 33 33	+38° 41	18 47 47					18
97	COMP							Fe Ar Clear	60
98	COMP							"	"
99	HD177724	19h 00 49	+13° 42 53	19 01 22		0 26 W			94
CC26200	COMP							Fe Ar Clear	60
01	COMP							"	"
02	HDE235679	21h 55 00	+54° 01 00	19 13 38		01 41 E			236
03	COMP							Fe Ar Clear	60
04	BIAS(4)			19 55					
05	COMP							Fe Ar Clear	60
06	HD217675	22 57 19	+41 47 00	20 00 30		02 31 E			62
07	COMP							Fe Ar Clear	60

CCD
~~Spectr.~~ Temp. -100.5 °C Dome Temp./Hum. 09.5°C / 85% Transparency Conditions . clear 122

Focus 6.80

~~Spectr. Temp.~~ 80 again Dome Temp./Hum.

DOME FANS ON
420 0 50 1024 91 ccdfmt

Exp. Mtr. FILTER IN	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	~~P.H.~~ C.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=6006 S	30µm	6604 Å	3/4	FOCUS TEST		
								1/2			
								5		SE DOME FAN NOW OFF	
~8000		0.0	AOV					6		MAX 14K ADU	
								7			
								8			
6150		2.99	AOIIn					9	Telluric Std.	MAX ADU ~ ~~14K~~ 12 SK	
								10			
								11			
1122	2"-3"	B= 9.21	B2.5Ib					12	B/A pgm	MAX @ Hα on ~~8100~~ 8004	
								13			
								1/2			
								14			
3175		V= 3.65	B6p					15	VG!	MAX ADU ~ 9K	
29								16			

120 Pg #2

Date 1994 Oct 2/3 Observers [Bln]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End ~~End~~	Declination	Comparison Type/Filter	Comparison Exp.
CC26208 -27	FLAT x 20					02 26 E	+42° 18	Tung ½ Ap.	7
28/29	COMP/STELLAR	HARTMANN				"	"	FeAr clear	60/60
CC26239/31	COMP/STELLAR	HARTMANN				"	"	FeAr clear	40/70
32	BIAS(4)			20 39					
33	Comp							FeAr Clear	60
34	BD+26 3835	20 09 36	+26 27 00	20 51 27		01 45 W			2322
35	Comp							FeAr clear	60
36	Comp							"	"
37	HD1061	00 09 50	+08 16	21 38 13		01 49 E			1121
38	Comp							FeAr Clear	60
39	BIAS(4)			21 59 37					
CG40491 93	HD 214199	02 36	+36 15	22 05				4x	.067s
94 95	"	"	"					2x	.133s
CC26240	Comp							FeAr Clear	60s
41	HD1061	00 09 50	+08 16	22 19 24		01 04 E			1300

CCD
Spectr. Temp. -100.5°C Dome Temp./Hum. 8.3°C / 59.8% Transparency Conditions ... clear

Focus ..... 6.80 @ 6604 Å / 6.84 @ 4475 Å

Spectr. Temp. ..... Dome Temp./Hum. .....

NE FAN ON

920 0 50 1024 41 ccdfast.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=6065	306μ	6604Å	18		max ADU ~ 13K –	
								3/4	FOCUS TEST		
T=	8-~~11~~"	Set	6.84	CASS CCD	1800 l/mm G=4558	306μ	4475Å	3/4	FOCUS TEST.		
BG39 FILTER								1/2			
								19c.			
1690	3"-4"	B=8.6 -9.3	BB					20c	DR Val for Bln	100/1 S/N	
								21			
								22			
7076	3"-~~5~~"	6.15	A9s					23	Bln SB ppm		
								24			
								1/2			
	3"	V= 7.50	K5III						Seeing Test Dome SW		
									" " BAR PRESSURE STILL		
								25		Rising.	
8300		6.15	A9s					26	Bln SB ppm	max ADU ~ 4500	

125 pg # 3

Date 1994 Oct 2/3 Observers [Blm]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp(s)
cc26242	COMP							FeAr Clear	60
43	HD1061	00 09 50	+08 16 00	22 45 33		0 35 E			1400
44	COMP							FeAr Clear	60s
45	BIAS(4)			23 12					
46	Comp							FeAr Clear	60s
47	BD+26 3835	20 09 36	+26 27	23 19 15		04 16 W			2486
48	Comp							FeAr Clear	60s
49	BIAS(4)			00 05					
50	Comp							FeAr Clear	60
51	HD1061	00 09 50	+08 16	00 09 56		00 44 W			1171
52	Comp							FeAr Clear	60
53	Comp							"	"
54	HD21364	03 21 48	+09 23	00 36 44		02 15 E			348
55	Comp							FeAr Clear	60s
56	Comp							"	60s

CCD
Spectr. Temp. -100.7°C Dome Temp./Hum. +6.5°C/64% Transparency Conditions Clear 126

Focus 6.84 NE FAN ON

Spectr. Temp. 90 gain Dome Temp./Hum. +14.8°C 67.8%H Good Green/white AURORA in NORTH noted after 23EST

#20 0 50 1024 41 ccdfast

BG 39 Exp. Mtr. FILTER IN	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Clarkdale	~~P.H.~~	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=4558	300μ	4475Å	27			
9100		6.15	A9s					28	Bin 58 pgm	max 400 ~ 4300	
								29			
								½			
								5c			
1460	3"6	8.6 9.3	B8					6c	DR Vul again	S/N approaching 100:1	
								7			
								½			
								1			
7300	4"	6.15	A9s					8c	Bin 5 Bin		
								10			
								11			
18,600	5"	3.66	B8p					13	Bin 5pBin		
								14			
								16			

127
Pg #4

Date 1994 Oct 2/3 Observers [Bly] / Tn. / Smt

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc 26257	HD1061	00 09 50	+8 16	00 50 07		01 22 W			1037	1639 7600
58	Comp							Fe4r Clear	60s	
59	BIAS(4)			01 10						
60	HD1061	00 09 50	+8 16	01 11 24		01 45 W			1153	8145
61	Comp							Fe4r Clear	60s	
62	COMP							"	"	
63	HD37017	05 30 25	-04 34 00	01 39 19		0301 E			1518	544
64	Comp							Fe4r Clear	60s	
65	BIAS(4)			02 11						
66	COMP							Fe4r Clear	60	
67	HD19832	03 06 17	+26 52 48	02 15 13		0 16 E			662	7.30
68	COMP							Fe4r Clear	60	
69	COMP							"	"	
70	HD37017	05 30 25	-04 34 00	02 38 49		202 E			1430	6-2
71	COMP							Fe4r Clear	60	

Spectr. Temp. ..... Dome Temp./Hum. +4.5°C ... 68.4%H Transparency Conditions ... Fine .....

Focus ... 6:84 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 420 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39 7000	5"	6.15	A9s	CASS.	1800 G4558	306u	4475	17	Sp Bin Bln		
								21			
								1/2		CCDT = -101.8°C	
5145		6.15	A9s					23	Sp Bin Bln		
								24			
								25			
5408	5"	6.56	B2V					26	Bln		
								27			
								1/2			
								27			
7600	6"	V= 5.79	B8(Si)					28	Bln He-weak	max 4000 ~ 4000	
								29			
								5			
6400		6.56	B2V					6	Bln		
								7			

129

pg#5

Date 1994 Oct 2/3 Observers [Blm]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp(s)
CC 26272 -91	FLAT x 20					1 56 E	−4° 30	Tung Clear	15
92/93	COMP/STELLAR HARTMANN					"	"	Fe Ar Clear	40/20
94	BIAS(4)			03 24					
95/96	COMP/STELLAR HARTMANN							Fe Ar Clear	40/60
97	COMP							"	60
98	HD217675	22 57 19	+41 47 00	03 48 02		5 18 W			92
99	COMP							Fe Ar Clear	60
CC26300	COMP							"	"
01	BM Cas	00 48 36	+63 33 00	04 07 41		4 21 W			2278
02	COMP							Fe Ar Clear	60
03	BIAS(4)			04 49					
04	COMP							Fe Ar Clear	60
05	HD14386	02 14 18	−03° 26 00	04 57 14		3 20 W			682
06	COMP							Fe Ar Clear	60
07	COMP							"	"

Spectr. Temp. ..... Dome Temp./Hum. 3.7°C / 10.0% Transparency Conditions ..Clear.. aurora.. way.. N130

Focus ..... 6.84 for 4855Å

Spectr. Temp. ..... Dome Temp./Hum. .....

NE DOME FAN ON

420 0 50 1024 4 1 ccdfast

Exp. Mtr. FILTER IN	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ clambda	P.H. cs	Program	Remarks	Quality
				CASS CCD	1800 ℓ/mm G=4558	306μ	4475 Å	10			
								3/4	FOCUS TEST		
								1/2			
26 39 FILTER IN				CASS CCD	1800 ℓ/mm G=4800	306μ	4835 Å (Hβ)	5/6	FOCUS TEST.		
								7			
5180		3.69	B6p					8	vG ?		
								11			
								14			
T81	4"	V=8.82 -9.33	?					15	Mki pgm	Tel East Side ΔRA −00 00 28 Δdec −00 01 42	
								110			
								1/2			
								19			
685		V= 2-10	gM6e	(V=2 M5.5IIIe − V=10 M9 III e)				22	vG (Mira)		
								24			
								24			

1131 pg #6

Date 1994 Oct 2/3 Observers Jn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26308	HD18884	02 57 06	03 42 00	~~05 14 55~~ 05 21 26		~~2 46 W~~ 2 50 W			~~164~~ 66
09	COMP							FeAr Clear	60
10	COMP							"	"
11	HD22484	03 31 48	00 05 00	05 29 20		2 26 W			187
12	COMP							FeAr Clear	60
13-22	FLAT x 10					2 28 W	0 23 N	Tung Clear	6
23	BIAS(4)			05 46					
24/25	COMP/STELLAR	HARTMANN				2 28 W	0 23 N	FeAr Clear	40/60

Spectr. Temp
Focus
Spectr. Temp
Exp Mtr
~~350~~ 360
~~450~~
4760

Spectr. Temp. ..... Dome Temp./Hum. 2.5°C / 72.4% Transparency Conditions . clear 132

Focus ..... 6.84 .....

Spectr. Temp. ..... Dome Temp./Hum. 2.8°C / 73.1% @ FOCUS TEST.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
6350 ~~18400~~		V = 2.53	M1.5III	CASS CCD	1800 l/mm G = 4800	300μ	~4835Å	25	RV STD.	saturated on first attempt so redid comp ~~mon~~ (previous) and star.	
								26			
								27			
4760		4.28	F8V					28	RV STD		
								29			
								30		max ADU ~ 13.8K - 13.0K	
								1/2		DOME CLOSED	
								5/6	FOCUS TEST		
		All to WORM & Perseus									

1133 Pg #1 Wed-Thurs

Date ..1994..Oct..5/6.. Observers .....Tn./.Kok.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc26326/7	Comp / Stellar Hartmann					3 00 10W	+39°	FeAr Clear	90/90
cc26328	Bias (4)								
329	Comp							FeAr clear	90s
330	BD +61154	0h 37m 30s	61 22'00	18 50 11					487
331	Comp	"	"	"				FeAr Clear	90s
332	BD +61154	0h 37m 30s	61° 22' 09	19 09 19		-4 30 E			1602
334	Comp							FeAr Clear	90s
333	BD+61154	0h 37m 30s	61° 22' 00	19 37 23		-3 58 E			1634
335	Bias (4)								
cc26 336-341	Flats x5					03 47E	+61 54	Tung Clear	11s
342	Comp							FeAr/Clear	60s
343	BD+61 154	00 37 30	+61 22	20 26 36		3 25E			720
344	Comp							FeAr Clear	60s
345	BIAS (4)								
346 353	FLATS x6					03 17E	61 54	Tung Clear	22s

CCD Spectr. Temp
Focus.....
Spectr. Temp

Exp Mtr.	S
1/2 Filter of this D	
258	
576	
640	
1/4 Filter s...	
165	

CCD
Spectr. Temp. −100°C ..... Dome Temp./Hum. 9.8°C 57.8% Transparency Conditions ....clear...STRP.cloud... 134
→ much cloud

Focus .....6.84.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 45 0 50 1024 41 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no Filter at this λ				CASS CCD	G=5545 1800l/mm	304	λc. 5890				
								1			
								5			
258		9.5						6ci	Koh pgm		
								8ci	← ←	HAD to Reset AC. and Bring up CCDs again	
576	1-½"	9.5	emission					9ci	Koh pgm	≥(800 ADU max at No D ens)	
								11ci			
640								10	Koh pgm	~~28~~ Coat to end	
								1			
								12		≳12000 ADU max	
					1800l/mm G=4446		4298Å	14			
no Filter still 165	2"	9.5						15	Koh pgm	cloudy	
								16			
								1/2			
								17		11K ADU max	

135

Pg #2

Date 1994 Oct 5/6 Observers K.o.k. / I.Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 26354/5	Comp / Stellar	Hartman				00 03 HE	+8°	Fe Ar Clear	60/100
356	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. 8.0°C ..... 67% H Transparency Conditions .. Cloudy .....

Focus ..... 6.84 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/m G=4446	306u	4298H				
						1/2					
					All to WORM & Perseus						

137 pg #1

Emulsion Batches:

Date ...Oct 6/94..... Observers .....Hall/Smt.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC 3635 7/8	comp/stellar Focus test Hartman			~~19:11~~		0	39°1	FeAr Clear	60/100	F:27 Filter
59	Bias(A)			18:12:35						
60	comp			18:45				FeAr	60	
61	HD147394	16h16m44s	46°33'5"	18:48		3h14m W			90s	100
62	comp			18:51				FeAr	60s	
63	HD147394			18:54		3h26m W			155	300
64	comp			18:58				FeAr	60s	
65	HD147394			19:00		3h27m W			156s	307
66	comp			14:04				FeAr	60s	
67	Comp			19:08				FeAr	60s	
68	HD160762	17h36m38s	46°03'34"	19:12		2h 19m W			129s	100
69	comp			19:15				FeAr	60s	
70	~~HD160762~~ Bias(A)			19:17						
71	HD160762			19:19		2h26m W			135s	160
72	Comp			19:22				FeAr	60s	
73	HD160762			19:25		2h32m W			141s	405

Spectr. Temp. -110.7°C Dome Temp./Hum. 13.0° / 70.0 Transparency Conditions clear 138

Focus 6.84

Spectr. Temp. ..... Dome Temp./Hum. .....

BOTH DOME FANS ON

415 050 1024 41 coolant

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Cathode	~~P.H.~~ E.	Program	Remarks	Quality
BG39 Filter				Cass CCD	6=4446 1200 l/mm	306μ	4298	3/4			
								½			
								5	Hml		
8100		3.89	B5IV					6		airmass ~1.208 at ed. ~5800 max adu	
								7			
15010								8		Zair ~1.22 at ed 14.7K max adu	
								9			
15075								10		Zair ~ 1.237 at ed 11.7K max adu	
								11			
15100		3.80	B3III					12 13		Zair ~1.099 at ed 12.9K max adu	
								14			
								½			
15100								15		max adu ~ 11.5K Zair ~ 1.1109 at ed	
								16			
15200								15		max adu ~ 9.9K adu Zair ~ 1.245 at ed	

13a pg#2

Date Oct 6/7/99 Observers Hval/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC263 #1	comp			19:30				FeAr clear	60s
75	HD160762	17h36m38s	46°03'34"	19:32		2h31mW			132s
76	comp			19:35				FeAr clear	60s
77	HD160762			19:37		2h44mW			126s
78	comp			19:41				FeAr clear	60
~~79~~	~~HD160762 comp~~			~~19:58~~				~~FeAr clear~~	~~60s~~
	~~HD208057~~	~~21h48m38s~~	~~25°27'00"~~						
79	Brac(A)			20:02					
80	comp			20:04				FeAr Clear	60s
81	HD208057	21h48m30s	25°27'00"	20:06		-0h54mE			38s
82	comp			20:15				FeAr Clear	60s
83	HD208057			20:18		-0h43mE			40s
84	comp			20:26				FeAr clear	60s
85	HD208057			20:28		-0h32mE			42.6s
86	comp			20:37				FeAr Clear	60s

Spectr. Temp. – Dome Temp./Hum. 12.6°C/73.2% Transparency Conditions ..Clear.....140.

Focus ..... 6.84 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

415 0 50 1024 4 1 ccdfast

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~15~~ 36 39 FILTER				Cass CCD	G=4446 1800 l/mm	3sec	4298	~~M~~ 6	Hnl	~~mar~~ 2.11 E	
15050		3.80	B3V					15		zavated 1.1328 maradu 11.4 Kadu.	
								16			
15000								15		maradu 18.2K zavated 1.143	
								16			
								17			
		~~5.08~~	~~B3V~~					~~17~~		switch ccd format to 430 0 50 1024 4 1	
								1/2		switch ccd format to 430 0 50 1024 4 1	
								3		turnoff SE fan.	
14600		5.08	B3V					4		maradu 11.8K.	
								5			
14760								4		maradu 11.9K	
								~~5~~			
15040								~~4~~		mar adu 11.1 K	
								~~5~~			

141 pgs

Date Oct 6/7 1994 Observers Hml/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CL26387	HD208057	21h48m30s	25°27'00"	20:40		-0h20mE			442s
88	Comp			20:48				FeAr Clear	60s
89	bias(4)			20:50				1	
90	comp			20:56				FeAr Clear	60s
91	HD208947	21h59m7s	65°41'00"	20:58	21:18				1200s
92	comp							FeAr Clear	60s
93	comp			21:30				FeAr Clear	60s
94	HD218440	23h03m00s	59°13'00"	21:32	21:53	-0h29mE			1200s
95	comp			21:57				FeAr Clear	60s
96	bias(4)			21:59					
96	comp			22:01				FeAr Clear	60s
98	HD218440			22:06		0 04 W			1200
99	comp			22:28				FeAr Clear	60s
A00	HD218940			22:33	22:53	0h30mW			1200
401	comp							FeAr Clear	60s

Spectr. Ten
Focus
Spectr. Ten

Fup Mir.

Spectr. Temp. −100°5 Dome Temp./Hum. 12.3° / 76.4% Transparency Conditions .... Clear, a little hazy 142

Focus ..... 6.84 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

4330 050 1024.4.1

Exp. Mtr. (6 39 FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Cl an da	P.H.	Program	Remarks	Quality
16015		5.08	B3V	Cass CCD	E=44° 1800 l/mm	30 dia		4	Hrl	13.9K max adu	
								5			
								1/2			
								~~5~~			
11770		6.29	B2V					B		Doubles star Binary - not mentioned in BSC catalog. max adu 8.5K.	
								~~8.5~~			
								8			
11860		6.26	B2V					9		max adu ~7.9K	
								8			
								1/2			
								8			
12770								9		max ADU ~ 10.9K	
								8			
12470								9		max adu ~ 10.2K	
								10			

143 pg #4

Emulsion Batches:

Date Oct 6/7 1994 Observers Hmk/Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 26402	Brad(A)			23:00					
03	Comp			23:02				Fe Ar Clear	60s
04	HD886	$0^h 8^m 6^s$	$14°38'00''$	23:05		$-0^h 22^m$			5s
05	comp			23:06				Fe Ar Clear	60s
06	HD886			23:09		$-0^h 18^m$			5s
07	comp			23:11				Fe Ar Clear	60s
08	HD886			23:13		$-0^h 14^m$			5s
09	Comp			23:15				Fe Ar Clear	60s
10	HD886			23:18		$-0^h 8^m$			62s
11	comp			23:21				Fe Ar Clear	60s
12	HD886.			23:23		$-0^h 4^m$			53s
13	comp			23:25				Fe Ar Clear	60s
CG40497-500 50/02	HD224720	23 55 06	+46 23 00						.067s
	"				00 24	0 29 W			.133s
14	Comp			23:50				Fe Ar Clear	60s

Spectr. Temp. ..... −10.5°C ..... Dome Temp./Hum. .. 11.2°/77.2% Transparency Conditions .. clear, hazy 144

Focus ..... 6.29 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CCD Coss	4496 1800 l/mm	30u	4293	1/2	Hal		
								11			
15100		2.83	B2V					12		moderate 19.9K	
								11			
15100								12		moderate 13.7K	
								11			
15100								12		moderate 12.2K	
								11			
17200								12		11, 8 moderate	
								11			
15100								12		12. OK moderate	
								11			
		7.3	A2V					—	SEEING TEST	DOME W, LIGHT W BREEZE, HAZY, ~~HAZE~~ 85% CAPTAIN HUMIDITY ABOVE 30km, JUST AFTER 10" ALUMINIZATION	
								—	11		
								13i			

145 pg #'s

Emulsion Batches:

Date Oct. 6/7 ... 1994 .... Observers .... Hrnl/Smt .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26415	HD3360	00h31m24s	55° 20' 48"	23:54	23:55				97s
16	comp			23:56				Fe Ar clear	60s
17	HD3360			23:59	00:00	0h8m W			103s
18	comp			00:01				Fe Ar clear	60s
19	bias(4)			00:03					
20	comp			00:05				Fe Ar clear	60s
21	HD3360			00:07	00:09	0h7m W			94s
22	comp			00:10				Fe Ar clear	60s
23	HD 3360			00:13:35					91
24	COMP			00 16				Fe Ar clear	
25	Comp			00:27				Fe Ar clear	60s
26	HD3901	00h36m29s	49° 58' 00"	00:30	00:35	0h38m W			286s
27	comp			00:36				Fe Ar clear	60s
28	HD 3901			00:39	00:42	0h47m W			293s
29	comp			00:47				Fe Ar clear	60s

Spectr. Temp. −101°C Dome Temp./Hum. 10,70 / 78,89% Transparency Conditions Clear, hazy 146

Focus 6.84

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	~~Slit~~	~~Emulsion~~ Cl	~~P.H.~~	Program	Remarks	Quality
15250		3,66 ~~B25H~~	B27V	CCD Cass	4446=6 1800l/mm	30u	4298	14	Hml	maradu 93,5%	
~~15050~~								15			
15050								16		maradu ~ 13,8%	
								17			
								1/2			
								18			
15100								19		maradu ~ 17,9%	
								20			
15000								21			
7/2								22			
								23			
15090		4,79	B32V					24		maradu ~ 11%.	
								~~24~~ 23			
15050								24		maradu ~ 2,8%.	
1								23			

147 pg #6

Emulsion Batches: .....

Date Oct. 6/7 1924 Observers Hind/Smt .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
EC 2430	HD 3901	$00^h36^m29^s$	49°58′	00:50	00:55	0^h58^m W			26s
31	comp			00:57				Fe Ar Clear	60s
32	HD 3901			00:59	01:04	1^h7^m W			24s
33	comp			01:06				Fe Ar Clear	60s
34	Bias (4)			01:08					
35	comp			01:18				Fe Ar Clear	60s
36	HD 4180	$00^h39^m04^s$	47°49′	01:21	01:25	1^h26^m W			25s
37	comp			01:31				Fe Ar Clear	60s
38	HD 4180			01:35	01:39	1^h40^m W			23s
39	comp			01:43				Fe Ar Clear	60s
40	HD 4180			01:47	01:50	1^h51^m W			20s
41	comp			01:52				Fe Ar Clear	60s
42	comp			01:56				Fe Ar Clear	60s
43	HD 4727	$0^h44^m18^s$	40°32′	01:59	02:03	1^h59^m W			22s
44	comp			02:04				Fe Ar Clear	60s

Spectr. Temp. -101°C Dome Temp./Hum. 10.5°C / 71.6% Transparency Conditions . clear, haze 148

Focus ..... 6.84 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lumodu	~~P.H.~~ C1	Program	Remarks	Quality
15004		4.79	B2V	CCD Cass	4446=6 1800 l/mm	30μ	4298	24	Hal	~13K max adu	
"								23			
15040								24		~10.5K max adu	
								23			
								1/2			
								25			
15030		4.57	B2V					26		max adu ~10K — emission in H line?	
								25			
15700								26		9.5K max adu	
								27			
15040								28		10.7K max adu	
								29			
								5			
15040		4.53	B5V					6		10.9K max adu	
								7			

149 pg 47

Date Oct 6/7 1954 Observers Hmd/fmt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Spectr. Tem / Focus / Spectr. Tem / Exp / Filter / Exp Mir
CC26445	HD4727	00h49m18s	40° 32′	02:06		2 06 W			22½	15:20
46	bias(4)			02:13 →						
47	COMP			02 14				Fe Ar Clear	60	
48	HD ~~5[illegible]~~ 4727	~~[illegible]~~	~~[illegible]~~	02:15	02:21	2h17m W			23½	15:20
49	comp			02:23				Fe Ar Clear	60s	
50	~~HD Hes 82~~ comp			02:30				Fe Ar Clear	60s	
51	HD16582	02h34m2s	-0°06′	02:33	02:36	0h43m W			19½s	15:22
52	comp			02:39				Fe Ar Clear	60s	
53	HD16582			02:41	02:44	0h50m W			19½s	15:00
54	comp			02:45				Fe Ar Clear	60s	
55	HD16582			02:47	02:50	0h56m W			17½s	15:16
56	comp			02:51				Fe Ar Clear	60s	
57	comp			02:58				Fe Ar Clear	60s	
58	HD22928	03h35m48s	4° 28′ 04″	03:00	03:01	0h4m W			49s	15:00
59	comp			03:03				Fe Ar Clear	60s	

Spectr. Temp. -100.5° Dome Temp./Hum. 10.2°/80.9% Transparency Conditions . clear, hazy 150

Focus 6.84

Spectr. Temp. Dome Temp./Hum. ccdfint. 430 050 529 41

Exp. Mtr. (¼ 39 FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	P.H.	Program	Remarks	Quality
15000		4.53	B5V	CCD Cass	C=4441 1800 l/mm	30u	4298	8	Hmd	max100 ~ 9.8K	
								½			
								10			
15022		~~4.07~~	~~B9IV~~					11		9.1K maxadu Zair ~1.39 atlead.	
								10			
								11			
15022		4.07	B2IV					12		maxadu ~9.3K	
								13			
15000								14		~10.9K maxadu Zair ~1.414 atlead.	
								15			
15150								16		~ 11.5K maxadu Zair atlead 1.423	
								17			
								18			
5300		3.01	B5III					19			
								20			

15/ page 8

Date Oct 6/7 1999 Observers Hmk/Smt

Emulsion Batches:
.....
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC2460	HD229238	$03^h35^m48^s$	+28°04"	03:05	03:06	0^h9^m W			5 1/2s
61	comp			03:08				Fe Ar Clear	60s
62	HD 229238			03:11	03:12	0^h15^m W			53s
63	comp			03:13				Fe Ar Clear	60s
64	HD 229238			03:15	03:17	0^h20^m			47s
65	comp			03:18				Fe Ar Clear	60s
66	bias(4)			03:20					
67	comp			03:23				Fe Ar Clear	60s
68	HD32630	$04^h59^m30^s$	41°05'58"	03:26	03:27	-0^h53^m			58s
69	comp			03:28				Fe Ar Clear	60s
70	HD 32630			03:30	03:31	-0^h49^m			58s
71	comp			03:32				Fe Ar Clear	60s
72	HD 32630			03:34	03:35	-0^h45^m			60s
73	comp			03:37				Fe Ar Clear	60s
74	HD 32630			03:39	03:40	-0^h40^m			54s

Spectr. Temp. ...-100.5°C... Dome Temp./Hum. 10.2°/79.8% Transparency Conditions . clear, haze on horizon 152

Focus ..... 6.84 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr. (B6 3A FILTER)	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Standard	~~P.H.~~ Ci	Program	Remarks	Quality
15200		~~B301~~	BSIII	CCD Cass	C=4446 1800l/mm	300μ	4298	21	Hml	maradu ~15.4K	
								22			
15100								23		~15.8K maradu.	
								24			
15000								25		~15.5K maradu	
								26			
								~~B201~~			
								27			
15100		3.17	B3V					28	Aur	~13.4K maradu	
								29			
15050								28		~19.6K maradu	
								29			
15100								28		~ 11.8K maradu.	
								29			
15200								28		~12.4K maradu.	

153 pg#9

Date Oct 6/7 1997 Observers Hml/Smk

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26475	comp			03:41				Fe Ar clear	60s
76	HD32630	04h54m30s	41°05'58"	03:43	03:44	-0h36m			61s
77	comp			03:44				Fe Ar clear	60s
78	comp			04:08				Fe Ar clear	60s
79	HD34759	05h14m44s	41°42'00"	04:10	04:18	-0h8m			427s
80	comp			04:19				Fe Ar clear	60s
81	HD34759			04:22	04:30	-0h6m			439s
82	comp			04:31				Fe Ar clear	60s
83	~~bias~~ HD34759 (4)			04:33	04:41	-0h5m			471s
84	Comp			04:42				Fe Ar clear	60s
85	bias(4)			04:48					
480–505	FLAT x 20					0 09 W	41° 45 45N	Tung clear	22s
~~84/85~~	COMP/~~STELLAR HARTMANN~~ not saved!!					"	"	Fe ar clear	40/70

Spectr. Tem
Focus.....
Spectr. Tem

Exp Mir

Spectr. Temp. −100.5°C Dome Temp./Hum. ...10.1°/80.4% Transparency Conditions ..Cleary. hazy → clear..... 154

Focus .....6.84.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Clamda	~~P.H.~~ C1	Program	Remarks	Quality
				CCD Cass	G=4446 1800 l/mm	30μ	4298	29	Hml		
15100		3.17	B3V					28		~19.9K maxadu	
								29			
								5			
15023		5.09	B5V					6	ℓ Aur	~10K maxadu	
								5			
15150								6			
								~~7~~		~11.3K maxadu	
15020								~~8~~ 7		~11.1K maxadu	
								9			
								½			
								10	1st flat maxadu 11.7K 2nd flat maxadu 11.5K	→ 10.588 <	
								3/4	FOCUS TEST		
				All to WORK	& Perseus				except α26507 !! ∴ α26506 overwritten.		

VSP Pg # 1

Date 1994 Oct 7/8 Observers Km/Smt

Emulsion Batches:
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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	(s) Exp.	Exp Mtr
CC26506 07/08	COMP/STELLAR HARTMANN							FeAr clear	60/65	
08	BIAS(4)									
09	COMP							FeAr clear	60	
10	Vys 836AB AC + 39 60670	21 32 36	39 00 29	21 03 51		0 25 45 W			600	298
11	COMP							FeAr clear	60	
12/13	COMP/STELLAR HARTMANN					0	35° 35' N	FeNe clear	5/10	
14	BIAS(4)			23 53						
15	COMP							FeNe clear	10	
16	HD6860	01 04 08	35 05 26	00 24 18		0 05 W			60	16 100
17	COMP							FeNe clear	10	
18	HD6860			00 29 13		0 10 W			60	50 100
19	COMP							FeNe clear	10	16
20	COMP							"	"	
21	HD1013	00 09 21	-08 20 13	00 41 51		1 28 W			660	330
22	COMP							FeNe clear	10	

CO
Spectr. Tem
Focus
Spectr. Tem

CCD
Spectr. Temp. -100.4°C ..... Dome Temp./Hum. 12.9°C / 11.1% Transparency Conditions ..clear → cloudy → clear again
Then to mod ten cloud.

Focus ..... 6.74 / 6.90 @ 6563Å / @ 4200Å

Spectr. Temp. ..... Dome Temp./Hum. 12.2°C / 76.4% at beginning of exposure (1st one)

DOME FANS OFF

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=6020	306μ	6563Å	3/4	FOCUS TEST	420 0 50 1024 41 ccdfast	
								1/2		waited for cloud to pass	
								5			
298		10.17	M6					6	Km test exposure	no emission?	
								7		clouded in again.	
				CASS CCD	600 l/mm G=2622	150μ	~4200Å (little redder)	3/4		450 0 50 1024 41 ccdfast.	
								1/2			
								5			
18 000		2.06	M0III					6	Km	max HeII ~13.5K	
~~17000?~~								7			
20 000		2.06	M0III					8	Km	max HeII ~16.2K !!!	
10 065								9			
								10			
8210		4.80	M2III					~~8~~ 8	Km	through cloud.	
								9			

157
Pg#2

Date 1994. Oct. 7/8 Observers Km/Smt

Emulsion Batches:
.....
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCZ6523	BIAS(4)			00 55				~~#~~	
24	~~HD#~~ comp							FeNe clear	20
25	HD214680	22 34 ~~49~~ 47	+38 31 ~~42~~	~~01 21 12~~ ~~01 03 19~~		~~3 35 W~~ ~~3 21 W~~			~~240~~ ~~480~~
26	COMP							FeNe clear	20
27	COMP							"	"
28	HD12929	02 01 ~~32~~	22 59 23	01 39 09		6 22 W			48
29	COMP							FeNe clear	20
30	HD12929			01 43 41					45
31	COMP							FeNe clear	20
32	COMP							"	"
33	HD213899	03 21 55	58 31 55	01 56 18		0 38 E			360
34	COMP							FeNe clear	20
35	BIAS(4)			02 05					
36	COMP							FeNe clear	20
37	HD213899			02 08 10		0 27 E			300
38	COMP							FeNe clear	20

LCO Spectr. Tem
Focus.....
Spectr. Tem

Exp Mtr
No 39 FILTER
N.W IN.
~~F 80~~ ~~F 300~~
240
430
480
2389.
300
236
277
450
2170

CCD Spectr. Temp. -101.5°C Dome Temp./Hum. 12.0°C/81.2% Transparency Conditions. med. cloud → clearing. 1.58.

Focus 6.90

Spectr. Temp. ..... Dome Temp./Hum. .....

DOME FANS OFF

450 0 50 1029 41 ccd flat

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
B6 39 FILTER				CASS CCD	600 ℓ/mm G=2622	150μ	~4200Å	½			
NOW IN.								11			
~~2280~~ ~~4000~~		4.88	O9V					12	Km MK pgm	max ADU ~ 5600 (saturated on 1st attempt)	
2190								13		max ADU ~ 2724	
2430								14		max ADU ~ 3000	
4500		2.90	K2III					15	Km MK pgm	max ADU ~ 10.7K	
2389.								16		max ADU ~ 2940	
5300								15	Km MK pgm	max ADU ~ 14K	
2906								16		max ADU ~ 3000 consistent enough.	
2377								17			
4350		4.54	A0Ia					18	Km MK pgm	max ADU ~ 11.3K S/N ~ 270:1	
								19			
								½			
								20			
2170								21	Km MK pgm	through some cloud. S/N ~ 190. max ADU ~ 6750	
								22			

159
Pg #3

Date 1994 Oct 7/8 Observers Km./Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc26539	Comp							← FeNe 2 clear	
40	HD20902	03 17 11	49 30 19	02 21 51		0 7 E?			60
41	COMP							FeNe clear	20
42	HD20902			02 25 49		0 4 E			240
43	COMP							FeNe clear	20
44	HD20902			02 32 20		0 0 0			40
45	COMP							FeNe clear	20
46	COMP							11	11
47	HD 20630	03 14 07	03 00 13	02 44 42		0 22 W			360
48	COMP							FeNe clear	20
49	HD 20630			02 53 56		0 30 W			360
50	COMP							FeNe clear	20
51	BIAS(4)			03 02					
CC40503-6	HD ~~14 25 22~~	03 53 24 ~~03 00 56~~	+39 44 00 ~~39 55 21~~						.067
7/8	11								.133

Spectr. Temp. ~100.4°C Dome Temp./Hum. 12.1°C/83.7% Transparency Conditions .. medium cloud, but not enough to stop this pgm! 160

Focus ..... 6.90 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

DOME FANS OFF
450 0 50 60Hz 4 c ccdfil

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
B&G 34 FILTER IN ~20				CASS CCD	600 ℓ/mm G=7622	150μ	~4200Å	23			
2850		1.79	FS II					24	Km MK pgm	max ADU ~ 8700	
								25			
1880								26	Km	through cloud, thick cloud max ADU ~ 5100	
								27			
4900								26	Km	max ADU ~ 15.5K	
								27			
								28			
2070	-6"	4.83	GSV					29	Km	through cloud. max ADU ~ 4600	
								30			
2450								29	Km	through cloud max ADU ~ 5300	
								30			
								1/2		spec. controller reset after bias	
		6.84 ~~6.91~~	AO V ~~AO V~~					-	SEEING TEST	Dome WSW, no wind, just clouded up, above 150μ slit!! (wrong pgm)	
								-	"		

Pg # 64

Date 1994 Oct 7/8 Observers Km/Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mir
CC26552	COMP							FeNe clear	20	
53	HD 22049	03 28 13	-09 47 48	03 23 11		0 43 W			180	250
54	COMP							FeNe clear	20	
55	HD 22049			03 29 40		0 49 35 W			180	250
56	COMP							FeNe clear	20	
57	COMP							"	"	
58	HD 30652	04 44 25	06 47 12	03 04 46		0 13 20 E			100	200
59	Comp							FeNe clear	20	
60	HD 30652			03 59 31		0 00			100	200
61	COMP							FeNe clear	20	
62	BIAS(4)			04 11						
63	COMP							FeNe clear	20	
64	HD 31398	04 50 29	33 00 28	04 12 44		0 13 W			128	250
65	COMP							FeNe clear	20	135
66	HD 31398			04 23 35		0 18 W			100	200
67	COMP							FeNe clear	20	

Spectr. Temp. −100.5°C Dome Temp./Hum. 12.3°C/83.6% Transparency Conditions ..just cleared up.. bad. some haze left over 162

Focus ..... 8.90.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	600 ℓ/mm δ=26.22	150μ	~4200Å	5		spec. cent. reset again	
2350		3.73	K2V					6	Km MK pgm	max ADU ~ 4550 S/N ~ 110:1	
								7			
2500								8	Km	max ADU ~ 5200	
								9			
								10		ET	
3200		3.19	F6V					11	Km	max ADU ~ 9500 Centred on column 31 due to rack position @ 11900	
								12			
3745								13	Km	Centred on column 31 due to rack again.	
								14			
								½			
								15			
5000		2.68	K3III					16	Km	max ADU ~ 11.5K	
2385								17			
5000								18	Km	max ADU ~ 12K	
								19			

163 Dq #5

Date 1994 Oct 7/8 Observers Km / Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	(s) Exp.
cc26568	comp							FeNe Clear	20
69	HD32630	04 59 30	41 05 58	04 32 38 ~~04 30 49~~		0 17 30 W			100
70	COMP							FeNe Clear	20
71	HD32630			04 37 34		0 22 W			90
72	COMP							FeNe clear	20
73	COMP							"	"
74	HD34085	05 09 44	-08 19 01	04 49 15		0 25 W			30
75	COMP							FeNe Clear	20
76	HD34085			04 55 04		0 29 W			13 ~~97~~
77	COMP							FeNe Clear	20
78	COMP							"	"
79	HD39801	05 49 45	07 23 19	05 03 34		0 1 E			13
80	COMP							FeNe Clear	20
81	HD39081			05 07 14					20
82	COMP							FeNe Clear	20

CCD
Spectr. Temp. -101.5°C Dome Temp./Hum. 12.0°C/84.4% Transparency Conditions clear, a bit of haze down low

Focus 6:90

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	P.H. C1	Program	Remarks	Quality
3639 FILTER 1				CASS CCD	600 l/m G=2622	150μ	~4200Å	20			
4300		3.17	B3V					21	Km	max ADU ~ 13.6K	
								22			
5000								23	Km		
								24			
								25			
4700		0.12	B8 Ia					26	Km	max ADU ~ 12.6K RIGEL	
								27			
5100 ~~4000~~								28	Km	max ADU ~ 15.8K	
								29			
								5			
5180		0.50	M2Ib					6	Km	max ADU ~ 10.3K BETELGEUSE	
								7			
8000								8	Km	max ADU ~ 7560	
								9			

1965 Pg #6

Date 1994 Oct 7/8 Observers Km/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26583	BIAS(4)			05 11					
84	COMP							FeNe clear	20
	↓								
85	HD41117	05 57 59	20 08 27	05 16 53		0 8 30 W		~~FeNe clear~~	320
86	COMP							FeNe clear	
87	HD41117			05 24 51		0 16 W			306
88	COMP							FeNe clear	20
89	COMP							"	"
90	HD47839	06 35 29	09 59 18	05 39 18		0 06 E			303
91	COMP							FeNe clear	20
92	HD47839			05 47 04		0 0 E			200
93	COMP							FeNe clear	20
94-613	FLAT x20					0 02 51 W	9° 52' 36"	Tung clear	13
614	BIAS(4)			06 14					
615/16	COMP (STELLAR HARTMANN					0 02 51 W	9° 52' 36"	FeNe clear	5/10

CCD
Spectr. Temp. ..-100.5°C.. Dome Temp./Hum. ..12.5°C/86.9%.. Transparency Conditions ...clear..... 166

Focus .....6.90.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	600 ℓ/mm G=2622	150μ	~4200Å	1/2			
								10			
500		4.63	B2I					11	Km	max ADU 12.2K	
								12			
5000								13	Km	max ADU ~ 12.4K	
								14			
								15			
5400		4.66	07					16	Km	max ADU ~ 16K!	
								17			
3685								18	Km		
								19			
								20		max ADU ~ 14K → 13K	
				All to NORM & Perseus.				1/2			
								3/4	FOCUS TEST		

Pg #1
167

[Sun/Mon]

Date 1994 Oct 9/10 Observers [KK]/Smt & [rG] & [Bln]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	(s) Exp.
CC26617/18	COMP/STELLAR HARTMANN					0	44°15'	FeAr clear	60/65
19	BIAS(4)			21 38					
20	COMP							FeAr clear	60
21	HD217675	22 57 19	41 47 00	22 12 49		0 05 W ?			204
22	COMP							FeAr clear	60
23	HD217675			22 20 26		0 19 W			198
24	COMP							FeAr clear	60
25	HD217675			22 27 29		0 28 W			362
26	COMP							FeAr clear	60
27	BIAS(4)			22 36					
28	COMP							FeAr clear	60
29	HDE235679	21 55 00	54 01 00	23 09 24		02 48 W			2400
30	COMP							FeAr clear	60
31	BIAS(4)			00 24					
32	COMP								

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. 9.7°C/64.0% Transparency Conditions cleared up quickly, seeing is awful.

Focus 6.78

Spectr. Temp. 90 again Dome Temp./Hum. 7.6°C/68.7% by cc26628

DOME FANS OFF

415 0 50 1024 4 1 ccdfs

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG 560											
FILTER IN USE				CASS CCD	1800 l/mm G=6065	306μ	6604 Å	3/4	FOCUS TEST		
								1/2			
								5			
8000	8"-10"	3.6	B6p					6	rG & others	max ADU ~ 12.2K centred on column 17.	
								7			
8000								8		max ADU ~ 13.7K	
								9			
8000								10		through cloud. max ADU ~ 13.5K	
								11			
								1/2			
								12			
1124	6"-9"	B= 9.21	B2.5Ib					13	B/n Sp. B.n. pgm	cleared again whopping Hα emission. ~4 times continuum	
								14			
								~~13~~ 1/2			
								15			

169 Pg# 2

Date 1994 Oct 9/10. Observers [KK] / Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26633	HD47129	06 32 00	06 13 00	00 59 06		4 20 E		~~Fe Ar clear~~	~~1200s~~
34	COMP							Fe Ar clear	60
35	BIAS(4)			0122					
36 - 40	FLAT x 5					0	44°	Tung 4 Ap.	7
41/42	COMP/STELLAR	HARTMANN				"	"	Fe Ar clear	60/65

Spectr. Tem
Focus.....
Spectr. Tem

CCD
~~Spectr.~~ Temp. ...-100.5...C Dome Temp./Hum. ..06.2°C./.73.2% Transparency Conditions .clear., .seeing..atrocious. 170

Focus .....6.78.....

~~Spectr. Temp.~~ .90. again.. Dome Temp./Hum. .....

DOME FANS OFF

415 0 50 1024 41 ccd fit

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1600 sec FILTER 4425		6.05	08e	CASS CCD	1800 Red G=6065	36μm	6604 Å	16	KK for Dany Gies		
								17			
								1/2			
										max ADU ~ 12K → 11.5K	
								18			
								19/20	FOCUS TEST		

All to M & Perseus

171 pg#1 Mon/Tues Thanksgiving Day

Date 1994 Oct 10/11 Observers [r.G.]/[T.N.]/[S.m.t.] & [BIn] & [KK]

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc26643/44	Comp/Stellar	HARTMANN				0	39°	FeAr clear	60/65
45	BIAS(4)			18 ~~19~~ 20					
46	COMP							FeAr clear	60
47	HDE235679	21 55 00	54 01 00	18 51 26		01 24E			2584
48	COMP							FeAr clear	60
49	BIAS(4)			19 20 1st					
50	Comp							FeAr Clear	60s*
51/52	PLUTO	20 16 48	+21 15	19 49 04	20 02 18	0 39 W/046W			45s/28s
53	Comp							FeAr Clear	60s
66 40509-12	HD201150	21 06 30	+36 24						.067
13/14	"								.133
cc26654 55	BIAS(4) COMP			20 22 1st				FeAr clear	60
56	HD217675	21 57 19	+41 47	20 34 17		01 ~~25~~ E ~~01 32 E~~			~~124~~ ~~134~~
57	COMP							FeAr Clear	60
58	HD217675			20 40 18		01 17 E			139 ~~137~~

CCD
Spectr. Temp. −100°C Dome Temp./Hum. +86°C 56.7%H Transparency Conditions .. Fine,..but some clouds... 177

Focus ..... 6.82 .....

Spectr. Temp. ..90.C.g.9ia.... Dome Temp./Hum. .....

Grating not moved from previous night's tilt. Grating left "disabled"

Exp. Mtr. CC 560	Seeing	Pkg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
FILTER IN				CASS CCD	1200l/mm G=6065	300u	6604Å	3/4	focus test		
								1/2			
								5			
1532	~~FUZZY~~	B = 9.21	B2.5Ib					6	Bln Sp bin pgm		
								7			
								1/2			
*Sp cont. of field, Leaving source on forever, Exposure is stronger??								8			
71/32		≈10	Em					8 1/2	MK: suggestion 52 → max ADU ~ 9600	<6650Å Hα saturated badly.	
~~No~~ No, this 60sec exp same strength as <C 26650.								10	Faint star seen NORTH 1' from Pol Vu!		
								—	SEEING TEST	Done SW, med.-strong NNW and clear	
								—			
								1 / 11			
~~7500~~ 8000		3.63	B6p					12	rG	first attempt saturated continuum. max ADU ~ 14bit	
								13			
~~5000~~ 8000								12	rG	Through some cloud and saturated on first attempt.	

Prog # 2

Date 1994 Oct 10/11 Observers [rG]/[kk]/[km]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 26659	COMP							Fe Ar clear	60
60	Comp							Fe Ar clear	60
61	HD177724	19 00 49	13 42 53	21 02 26		2 59 W			72
62	COMP							Fe Ar clear	60
63	BIAS(4)			21 08					
64-83	FLAT x 20					$03^h 03^m$ W	$13^\circ 52'$ N	Tung 1/4 Ap	7
cc 26684/85	Comp / Stellar Hartmann					02 22W	+2 44	Fe Ar clear	40/60
86	COMP							Fe Ar clear	60
87	BD+26 3835	20 09 36	+26 27	21 42 17					2401
88	COMP							Fe Ar clear	60
89	BIAS(4)								
90	Comp							Fe Ar clear	60
91	HD 21364	03 21 48	+92300	22 36 51		3 44E			283
92	Comp							Fe Ar clear	
CGN 515 – 518	HD 223094	23 41 23	+28 08 54			00 13W	+29°	4x	266 sec
CGx 19 20	"							2x	1133 sec

Spectr. Temp. ..... Dome Temp./Hum. 16.2°C...66.1% Transparency Conditions ...Some..Cloud..now...174

Focus ... 6.82 / 6.85 ...
@6604Å @4475Å

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
560											
FILTER				CASS CCD	1800 l/mm G=6065	306μm	6604Å	13			
								14			
7500		2.99	AOIIIn					15	Telluric Std.	max ADU ~ 14.5K	
								16			
								1/2			
								17		max ADU ~ 12.9K →	
639 FILTER					1800 l/mm G=4558		4475Å	3/4	FOCUS TEST		
								18			
2222		8.6 -9.3	B8					19	Bln Sp. Bal pgm.		
								20			
								1c			
								21			
21,400	3"	B 3.66	B8p					22	Bln Sp Bal	max 13K ADU	
								23			
		V 7.45	K5III						Seeing Test	Dome SW Light NNW wind "Breeze"	
									"	"	

175 pg#3 Mon/Tues

Date 1994 Oct 10/11 Observers [Blnj] T.b./Smt

Emulsion Batches:

CSS 386 noted to be 10 secs ahead of WWV Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26693	Comp							FeAr Clear	60s
94	BD+26 3835	200936	+2627	23 0712		4 35W			2458
95	Comp							FeAr Clear	60s
96	BIAS(4)			23 50					
97	Comp							FeAr Clear	60s
98	HD 37017	05 3025	-04 34	00 0304		4 09 E			1300
99	Comp							FeAr Clear	60
700-719	FLAT x 20					4 05 E	-4° 30' (S)	Tung Clear	15
720	COMP							FeAr Clear	60
21	HD37017			00 52 42		3 26 E			900
22	COMP							FeAr Clear	60
23	BIAS(4)			01 15					
24/25	COMP/STELLAR HARTMANN					3 18 E	-4° 30' (S)	FeAr Clear	40/60
26/27	COMP/STELLAR HARTMANN					2 07W	+6 40	FeAr Clear	60/60

Spectr. Temp. ..... Dome Temp./Hum. 15.0°C ..... 70% Transparency Conditions ... Fine now 176

Focus ..... 6.85 ..... NE DOME FAN ON.

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	Quality
BG 39 Filter				CASS CCD	1800 l/mm G=4558	306μ	4475Å	24c;			
1979	3-4"	8.6 -9.3	B8					25c;	DR Vul for B/m		
								26			
								1/2c;			
								27c;			
4280 sec		6.56	B2V					28;	B/m pgm	max ADU ~ 2800	
								29			
								30		max ADU ~ 13.2K → 12.1K	
								27			
1520								28	B/m pgm	max ADU ~ 2500	
								29			
								1/2			
								3/4	FOCUS TEST		
					1800 l/mm G=6070		6605Å	3/4	focus test	still 6.85 due to T decline	

Rg #4

Emulsion Batches:

Date 1994...Oct...10/11. Observers [kk]/Tn./Sut....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 26 28	Comp							FeAr Clear	60
29	Vgs 858 AC +63 32399	23 02 02	63 23 24	02 07 41		4 18 W			900
30	COMP							FeAr Clear	60
31	BIAS(4)			02 22					
32	COMP							FeAr Clear	60
33	Vgs 858 AC +63 32399			02 34 57		5 12 W			2400
34	COMP							FeAr Clear	60
35	BIAS(4)								
36	Comp							FeAr Clear	60 sec
37	HD47129	06 32 00	+06 13	03 24 52		2° 0' E			600
38	Comp							FeAr Clear	60 sec
39	COMP							FeAr Clear	60s
40	HD 23862	03 43 14	+23 50	~~03 53 44~~ ~~03 46 12~~		1 11 W			50 ~~235~~
41	comp			03 57 24				FeAr Clear	60
42	BIAS(4)			04 01					

Spectr. Temp. ..... Dome Temp./Hum. 3.8°C / 71.6% Transparency Conditions .. clear 178

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CCDFMT
416 0 50 1024 4 1

* Had to make G=6070 rather than 6065 to match frames

Exp. Mtr. 18639	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt *	Slit	Emulsion *	P.H.	Program	Remarks RANGE	Quality
FILTER				CASS CCD	1460 l/mm G=6070	306μ	6605Å	5	Called C LAMBDA 6605Å to separate from		
98		10.8	MO ← should be e		max ADU ~ 1200 <100:1 S/N			6	Earlier 6600 Region observing Vys858	Tel E side of I-P ims.	
								7			
								1/2			
06 560 FILTER								11			
800 ish		10.8	MO (e)					12	Vys? @ Hα kk/Km/Sust...	max ADU @ Hα ~ 2600'	
								13			
								1/2			
5237	3"	6.05	08e					15½	kk pgm	max ADU ~ 12k	
								17			
~~2000~~ 5180 ~~868~~		5.09	BBp (e!)		Hα emission	6x ~~bar~~ continuum		18	28 Tau for kk	max ADU @ Hα ~ 9000 saturated 1st 2 attempts.	
								20			
								1/2			

1179
19 #5

Date 1994...Oct..10/11.. Observers [KK/MKi]/..T.n./S.n.t ~13 1n

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26743	COMP							FeAr clear	60
44	BM Cas	00 48 36	63 33 00	04 10 07		4 50 W			1951
45	COMP							FeAr clear	60
46	COMP							FeAr clear	60s
47	NOVA CAS 93	23 36 59	56 57 45	04 55 01		6 33 W			1075
48	Comp							FeAr Clear	60s
49	BIAS(4)			05 16					
50	COMP							FeAr clear	60
51	HD47129	06 32 00	06 13 00	05 24 17		0 0 E			659
52	COMP							FeAr clear	60
53	Comp							"	"
54	HD87901	10 03 03	+12 27	05 43 36		3 27 E			17
55	Comp							FeAr clear	60s
56 → 65	FLATS x 10					3 19 E	+12°	THING Ap 1/4	7sec
66	BIAS(4)								
67/68	comp / stellar	Hartman				0 0	+35	FeAr clear	60/60

Spectr. Temp. ..... Dome Temp./Hum. 3.4°C / 69.2% Transparency Conditions beautifully clear 180
(constellations look like daytime)

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. 3.2°C 68.4%H

Exp. Mtr.	Seeing	✓ ~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
26 560 FILTER				CA-55 CCD	1800 G=6070	306μ	6605A	21			
1270		8.52–9.33	?					22	Mki pgm	max ADU ~12.5K double peaked Hα emission separated by Hα absorption.	
								23			
								24			
~~EST~~ 29				max ADU ~ 850				25	Bin pgm almost wrong clarkdale	Nova Cas 93 quite a bit brighter than triangle of field stars to SW (~0.5' SW of Nova)	
								26			
								1/2			
								27			
5000	2"	6.05	08e					28	KK pgm	max ADU ~ 13.5K CCD T ok @ -100.3°C	
								29			
								5			
4600		1.36	BTV					6	Telluric Std	MAX 7K ADU 1.65 Airmass	
								7			
								10G		max 13.2K → 12.1K ADU	
				Note	CCD Temp	-98°C		bg 3/4	06 EST.: focus test	Just starting to work up? All to MAX 20K and weak	

181

p4#1 Tues/Wed

Date 1994 Oct 11/12 Observers Tr./Bart...Service...

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC2676 9/70	Comp/Stellar	HARTMAN				00 10W	+44°	FeAr clear	60/60
71	BIAS(4)			19 03					
72	COMP							FeAr clear	60
73	HD187235	19 43 55	38 09 36	19 06 48		0h 30 W			350
74	COMP							FeAr clear	60
75	COMP							FeAr clear	60
76	Nova Cyg 92	20 27 43	52 17 39	19 23 40		0h 27 W			1816
77	COMP							FeAr clear	60
78	BIAS(4)			19 59					
79	Comp							FeAr Clear	60
80	Nova Cas 93	23 36 59	56 57 45	20 07 48		01 46E			2632
81	COMP							FeAr Clear	60
82	BIAS(4)			20 55					
83	COMP							FeAr clear	60
84	Vys 806B AC+54 1780-45	18 54 12	54 22 09	21 02 39		03h 34 W			1364
85	COMP							FeAr clear	60

CCD
Spectr. Temp
Focus... 6
Spectr. Temp

Exp. Mtr	
CC360 FILTER	
300	
59	
75	
44	

CCD
Spectr. Temp. −100°C ..... Dome Temp./Hum. 7.8.2°C..47.1%H Transparency Conditions ..... Fine 1.42

Focus ... 6.80 .....

~~Spectr. Temp.~~ 90 cgain .... Dome Temp./Hum. .....

415 0 50 1024 4 1 CCDFAN
FANS OFF

Exp. Mtr.	Seeing	~~Pic~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Clear Ida	C. P.H.	Program	Remarks	max ADU ~~Quality~~
06560 FILTER				CASS CCD	1800 l/mm G-6035	30u	6563 Å	3/4	focus test		
								1/2			
								5			
5000	<2"	5.77	B8V					6	Telluric Std.	air mass = 1.0026	13K
								7			
								8			
39		VERY FAINT						9	Bln pgm	MANUALLY GUIDED WITH SBIG AS DISPLAY	200 e abv Continuum
								10			
								1/2			
								11			
95	<2"	NOT AS FAINT AS NOVALYCRA						12	Bln pgm		3600
								13			
								1/2			
								14			
134		12.0	MO					15	Ev,ss Km pgm.	Hα absorption, no obvious emission	

183
1/4 # 2

Emulsion Batches: .....

Date 1994...Oct. 11./12... Observers [Bh./r.6./KK./km./[illegible]] / Tu / Smt service .....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26786	COMP							FeAr Clear	60
87	Vys 893C BD+23 4575C	22 32 41	23 24 52	21 50 36		0h 22 39W			313
88	Vys 893C BD+23 4575C			21 57 28					2024
89	COMP							FeAr Clear	60
90	BIAS(4)			22 55					
91	COMP							FeAr Clear	60
92	HD187235	19 43 55	38 09 36			4h 08 W			527
93	COMP								
94-813	FLAT x 20							Tung Vy 4p	7
814/15	Comp / Stellar Hoffman					4 11W	+26 44	FeAr Clear	50/70
16	COMP							"	60s
17	BD+26 3835	20 09 36	+26 27	23 23 37		4 51 W			2207
18	COMP								
19	BIAS(4)								
20	Comp (after Spectr control Reset)					4 30E	-4°	FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 6.3°C / 62.2% Transparency Conditions .. clear 1884

Focus ... 6.80 @6563Å ~ 6.88 @4475Å

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG 560 FILTER				CASS CCD	1800 l/mm G=6035	306μ	6563Å	16			
171		12.2	8K8	[no H2 emission.]				17	Km / {Vlys}	seeing too bright brighter of close pair	580
156				"				18	Km / {Vlys}	dim SW companion of above	
								19			
								½			
								20			
4850								21	Telluric Std.	air mass @ beginning 1.40Z	8400
								22			
								23			11K → 10K
OG 560 FILTER STILL IN	6.88	T= 48°C			1800 g/mm G=4558		4475Å	3/4	focus test		
								5			
X 1779	8.6 ~~8.8~~	8.6-7.3 ~~8.8~~	88	"	"	"	"	6	DR Vol for Bln	MAX 1200 ADU	"
BG 34 FILTER ↓								7			
								1/2			
								8			

185 pg 3

Emulsion Batches:

Date 1.9.94. Oct 11/12 Observers Blaj. Tr. / Sat

* CSS 386 noted to be .10 secs ahead of WWV

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC26821	HD37017	05 30 25	-04 34	00 17 39		3 56 E			1006
22	Comp							Fe Ar Clear	60s
23	Comp							4	4
24	HD21364	03 21 48	+09 23	00 45 49		1 33 E			161
25	Comp							Fe Ar Clear	60s
26	Comp							4	60
27	HD37017	05 30 25	-04 34	00 57 45		3h 20 E			719
28	Comp							Fe Ar Clear	60
29	BIAS(4)			01 12					
CG40521 24	HD13013	02 02 18	43 59 07	01 23		00 22 W	+45 59	4x	67m
CG40525 26	"	"	"					2x	133m
CC26830	COMP							Fe Ar Clear	60
31	HD37017	05 30 25	-04 34	01 42 11		2h 28 E			1200
32	COMP							Fe Ar Clear	60
33	BIAS(4)			02 06					

CCD
Spectr. Temp. -100.3°C ..... Dome Temp./Hum. 14.8°C ... 70% Transparency Conditions ... Fine 126

Focus . 6.88 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Mac ADU~~ Quality
R639 Filter 4240	4"	6.56	B2V	CASS CCD	1800 G-4558	30μ	4415	15	Bln Pgm		
								16			
								19			
27K	<2"	3.66	B8p					20	Bln Pgm	15K ADU MAX	
								22			
								23			
4660		6.56	B2V					24	Bln pgm		3000
								26			
								1/2			
	<2"	64	G8II					-	Seeing Test, Dome West		
								-	very light East ground wind		
								23			
8200	3"	6.56	B2V					24	Bln pgm		60K
								26			
								1/2			

187 pg # 4

Emulsion Batches:

Date 1994 Oct 11/12 Observers [Bln] .../.../Tn/Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
IIC 26834 -33	FLAT x 20					2h 22 E	-4° 34	Tung Clear	15
54	COMP							FeAr clear	60
55	HD 37017	05 30 25	-04 34	02 27 16		1h 50 E			762
56	COMP							FeAr clear	60
57/58	COMP/STELLAR HARTMANN					0h	+42° N	FeAr clear	60/90
59/60	COMP/STELLAR HARTMANN					"	"	FeAr clear	60/60
61	BIAS(4)			03 12					
62	COMP							FeAr clear	60
63	HD217675	22 57 19	+41 47 00	03 17 33		5h 21 W			64
64	COMP							FeAr clear	60
65	HD217675			03 22 37		5h 27 W			75
66	COMP							FeAr clear	60
67	HD217675			03 28 03		5h 33 W			63
68	COMP							FeAr clear	60
69	COMP							"	"

CCD
Spectr. Temp. −100.4°C Dome Temp./Hum. 04.6°C / 71.6% Transparency Conditions . clear 188

Focus 6.88 @ 4475Å / 6.85 @ 6604Å

Spectr. Temp. ..... Dome Temp./Hum. .....

CCD FMT
415 0 50 1024 41

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 37 FILTER				CASS CCD	1800 l/mm G=4558	30µm	4475Å	27			14K
								28			
5995	3"	6.56	BLV					29	Bln pgm		3700
								30			
Set G-88								3/4	FOCUS TEST		
86 560 FILTER					1800 G=6065	30µm	6604Å	3/4	FOCUS TEST	set @ 6.85	
								1/2			
								5			11.8K
5000		3.63	Blop					6	v6		
								7			
5000								8	v6		11.5K
								7			
5000								6	vG		9.2K
								5			
								10			

187
Eq #5

Date 1994 Oct 11/12 Observers [KK]/Tn./Smt...

Emulsion Batches:
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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC268 70	HD47129	06 32 00	+06 13 00	03 38 23		1h 44 E			400
71	COMP							Feather clear	60
72	COMP							"	"
73	HD23862	03 43 14	2350 00	04 02 21 ~~03 55 21~~		1h 19 W			33
74	COMP							Feather Clear	60
75	Comp							"	"
76	HD42545	06 06 17	16 09 11	04 14 42		00 48E			200
77	Comp							Feather Clear	60
78	BIAS (4)			04 21					
79	Comp							Feather Clear	60s
80	HD47129	06 37 00	+06 13	04 26 13		0h 56 E			530
81	Comp							Feather Clear	60s
82	HD47129			04 41 26		0h 44 E			360
83	COMP							Feather Clear	60
84	COMP							"	"

CCD
Spectr. Temp. −101.7°C ..... Dome Temp./Hum. 4.1°C/77.1% Transparency Conditions ..Clear 190

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Pkg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Quality~~
~~300~~ FILTER 4370		6.05	08e	CASS CCD	1800 l/mm G=6046	306μ	6604Å	11	KK	Plaskett's, Hβ emission	9.3K
								13			
								14			
~~800~~ ~~1000~~		5.09	B8p					15	KK		12.1K
								16			
								19			
4600		4.95	B5V					20	Telluric Std	1.15 Hi R MASS ~~MOS~~	16.5
								22			
								½			
								23			
5140		6.05	08e					24	KK pgm	Note very slightly saturated on 15th column @ Hδ	
								25			
3600								24	KK	Plaskett's	9K
								25			
								28			

1994 pg #6

Date 1994 Oct 11/12 Observers [KK]/An/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC26885	HD87901	10 03 03	12 27 00	04 55 05		4 06 E			4m	4.30
86	Comp							Feltr Clear	60sec	
87-96	FLAT x10					4h 3m E	+11° 55'	Iris 4 Aop	7	
97	BIAS(4)									

Spectr. Tem
Focus
Spectr. Tem

Spectr. Temp. ..... Dome Temp./Hum. +9.1°C 82.8% Transparency Conditions .. sl. hazy .....

Focus ..... 6.85 .....

Spectr. Temp. ..... Dome Temp./Hum. +11.1°C 85.6% H

Exp. Mtr.	Seeing	✓ Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Max Add Quality
4300		1.36	BTV	CASS CCD	1800 l/mm 6=6065	306u	6604 Å	29	Telluric Std.		
								30			
								27			123K → 11.2K
								½			
					All to	Perseus & Worm.					

193

pg#1 Wed/Thurs

Date 1994 Oct 12/13 Observers [Service] Jn/Smt

Emulsion Batches: .....

.....

CSS 386 Time set to www Time.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC2698 99	Comp/Stellar							FeAr Clear	60/60
CC6'900	Comp							FeAr Clear	60
901	HD187235	19 43 54	380936	18 44 51					455
902	Comp							FeAr clear	60
903	BIAS(4)			18 55 28					
904	Comp							FeAr Clear	60
905	HD 182917	19 21 54	+50 02	19 07 01		00 54W			180s
906	HD 182917	"	"	19 16 08		01 01W		FeAr Clear	60
907	Comp							FeAr Clear	60s
908	COMP							"	"
909	HD207076	21 41 26	-02 40 00	19 27 56		01h 08 W			100
910	COMP							FeAr clear	60
911	COMP							FeAr Clear	60
912	PU Vul	20 16 48	+21 15	19 42 42		0h 40 W			244
913	COMP							FeAr Clear	60

Spectr. Tem

Focus .....

Spectr. Tem

Exp. Mtr

FILTER

Spectr. Temp. −100 or so.... Dome Temp./Hum. 9.7°C / 60.7% Transparency Conditions clear 1924

Focus 6.78 415 0 50 1024 41 ccdtest

Spectr. Temp. ..... Dome Temp./Hum. ..... NE DOME FAN ON

Exp. Mtr.	Seeing	Pkg/ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
00 560 FILTER				CASS CCD	K600 2/mm G=6065	306μ	6604 Å	3/4			
								5			
		5.77	B8V					6	Telluric Std.		
								7			
								1/2			
		7.4 ± (7.3-8.2) according to AAVSO (with .10 mag flickering) (5-30 min period)						8			
1370		-9.1	Mb					9	CH Cyg Prgm	Hα saturated But saved anyway	
500	2"	"	"					10 Occ	" " "	MAX = 10 KADU of Hα	
								11			
								12			
4400			MIII					13	CH Cyg Std.	Hα emission.	12.8K
								14			
								15			
41	1-2"	11.77 e (From AAVSO circular)						16		Hα Em too ↑ Hα emission	11.5K
								17			

19 5
9 #2

Date 1994 Oct 12/13 Observers [service]/Tn/Smt.

Emulsion Batches:
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.....

Spectr. Tem
Focus ... 6
Spectr. Tem

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC26914	BIAS(4)									
15	Comp							FeAr Clear	60s	
16	HD27675	27 57 18	+41 47	20 07 05		1 45 E			64	4 30
17	Comp							FeAr Clear	60s	
18	HD27675			20 12 16					66	4200
19	Comp							FeAr Clear	60	
20	HD27675			20 17 38					64	4100
21	Comp							FeAr Clear	60	
22	Comp							"	"	
23	BPIGs	00 48 36	+63 33 00	20 31 00		2 57 E			1122	875
24	Comp							FeAr Clear	60s	
25	BIHS(4)									
26	Comp							Fe Ar Clear	60	
27	HD235679	54 01 00	21 55 00	21 00 15		0h 48 W			2214	1719
28	COMP							FeAr Clear	60	

Spectr. Temp. ..... Dome Temp./Hum. +8.3°C ..... 64.5% H Transparency Conditions ... v. slight Hy. hazy 1986

Focus ... 6.75 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

MMT ADC

Exp. Mtr.	Seeing	Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter				CCDS CCD	1800 l/mm G=6065	30μ	6604P				
		~~3.63~~	~~B6g~~					18			
4100	1"2	3.63	B6g					19	rG pgm	13.5 k ADC max	
								20			
4200								21	rG pgm	11.5 k	11.5k
								22			
4100								23	rG pgm		10.6k
								24			
								25			
875	1"2	8.8 -9.3						26	MK: pgm		10.5k
								27			
								1/2			
								28			
1639		8.86	B25Sb					29	Bln pgm	Hz emission.	EHn 13.3k
								30			M 9K noisy condition

197
pg # 3

Date 1994 Oct 12/13 Observers [Service] / Tn / Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC26929	COMP							Fe Ar Clear	60
30	HD187235	19 43 54	38 09 00	21 46 36		3h 17 W			574
31	COMP							Fe Ar Clear	60
32	BIAS(4)			22 00					
33	Comp							Fe Ar Clear	60s
34	HD 23862	03 43 18	+23 51 00	22 09 41		4h 29 E			65
35	Comp							Fe Ar Clear	60s
36	COMP							"	"
37	HD14386	02 14 18	-03 26 00	22 19 34		2h 49 E			66
38	COMP								
	~~COMP~~ ~~HD+26 3835~~ COMP	~~20 04 36~~	~~+26 21 00~~						
39-58 ~~60~~	FLAT x20					00 27W	+19°	Tung 4 Ap	7
59/60	Comp / Stellar	HARTMAN				"	"	Fe Ar Clear	60/6

Spectr. Temp. -101.7°C ... Dome Temp./Hum. 7.4°C / 10.8% Transparency Conditions ... clear ... 1.98

Focus ... 6.78 ...

Spectr. Temp. ... Dome Temp./Hum. ...

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	~~P.H.~~ Ei	Program	Remarks	~~Quality~~ max ADU
06560 P. Her				CASS CCD	1800 l/mm G=6065	30μ	6604 Å	7			
4700		5.77	B8V n					8	Telluric Std.	air mass = 1.23 → 2.01	11K
								~~11~~			
								1/2			
								12			
852		5.01	B8 p					15	Pleione (KKpgm)		@ Hα 10K
								17			
								18			
1750		2-10	gM6e					19			@ Hα 5K
								20	CCDT = -101.8°C		
											13K
								3/4	Focus test		-12K

199
Pg # 4

Date 1994 Oct 12/13 ..... Observers [illegible] J.S. / Sant .....

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc269 62	Comp / Stellar	Hartman				0027W	+26°	FeAr Clear	70/100
63	Comp							FeAr Clear	60
64	BIAS(4)								
65	BD+26 3835	20 09 36	+26 27	230739		0437W			2075
66	Comp							FeAr Clear	60
67	Comp							〃	〃
68	HD37617	05 30 25	-04 34	235858		0409E			1136
69	Comp							FeAr Clear	60
70	BIAS(4)								
71	COMP							FeAr Clear	60
72	HD21364	03 21 42	09 23 00	00 42 12		1 27 E			207
73	COMP							FeAr Clear	60
74	COMP							〃	〃
75	HD37017	05 30 25	-04 34	00 59 05		3h 02 E			1400
76	COMP							FeAr Clear	60

Spectr. Temp. ..... Dome Temp./Hum. +68°C ...74%H Transparency Conditions . Slight Haze 200

Focus . . 6.86 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CCDFMT

415 0 50 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G-4558	306u	4475A	6/5	focus test	(light on)	
BG 39 Filter in								7			
								1/2			
1700	3"4	8.6 -9.3	BS					8	Bln pgm	DR Val	900ADC
3000		656	BZV	Note	Slit guiding image at extreme Bottom of TV view. Hard to guide.			15	Bln pgm	note South one of a group of 4 stars	1416
								17a			
								2			
								18			
22600		3.66	BSV					19	Bln pgm.		13K
								20			
								21			
6180								25	Bln pgm		3600
								24			

pg #5

Date 1994 Oct 12/13 Observers [Bin]/[KK]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc26977	BIAS(4)			01 26 23						
78-97	~~FLAT~~ x 20					0h 01 W	+38°55	Tung clear	15	
CG405 27 30	HD19279	03 00 56	+46 55	0205				4x	67ms	
CG405 31 32	"	"						2x	133ms	
cc26998	Comp							Fe Ar clear	60	
99	HD37017	05 30 25	-04 34	021829		1h 50 E			1020	5:30
cc27000	COMP							Fe Ar clear	60	
01	BIAS(4)			02 39						
02/03	COMP/STELLAR HARTMANN					1h 44 E	+24°41	Fe Ar clear	70/100	
cc27004	Comp							Fe Ar Clear	60	
05	HD37017	05 30 25	-04 34	025333		1 17 E			900s	5:00
06	Comp							Fe Ar Clear	60	
07/08	Comp/Stellar Hartman					5 32W	+42°	"	60/60	6:02
09	COMP							Fe Ar Clear	60	
10	HD217675	22 57 19	+41 47 00	03 29 01		5 38 W			109	4:55
11	COMP							Fe Ar	60	

Spectr. Ter
Focus
Spectr. Ter

Spectr. Temp. ..... Dome Temp./Hum. 6.9°C / 73.4% Transparency Conditions .. slight haze 292

Focus ..... 6.86 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... NE FAN on only, Both on as NORMAL at START of night

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Lambda	~~P.H.~~	Program	Remarks	~~Quality~~
				CASS CCD	1800 R/mm G = 4558	306μ	4475Å	1/2			
								22		clock drive off.	13K → 12K
	2"	V 6.41	A3V m						Seeing Test	Dome W, light NE wind	
									1 4		
								24c.			
5500		656	B2V					25c.	Bln pgm.		3300
								27			
								1/2			
								3/4	FOCUS TEST	6.5°C	
								24c			
5200	3"	6.56	B2V					25c.	Bln pgm		3.4K
6.82	T = 6.5°C				1800 G=6065	306μ	6605Å	3/4			
								5			
4135		B.63	B6V					6	rG		8K
								7			

203 pg #6

Date 1994 Oct 12/13 Observers [KK]/Tn/Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27012	BIAS(4)			03 39					
13	COMP							Featr Clear	60
14	HD47129	06 32 00	+06 13 00	03 41 07		1h 30 E			482
15	COMP							Featr Clear	60
16	HD47129			03 56 31		1h 24 E			426
17	COMP							Featr Clear	60
18	Comp							"	"
19	HD87901	10 03 03	+12 27	04 12 47		4 45 E			15
20	Comp							Featr Clear, Tung Y4 Ap	60s
21-25	FLAT x5								7
26	BIAS(4)								

Spectr. Ten
Focus.....
Spectr. Ten

Exp Mtr
1200
1200
1200

Spectr. Temp. -101.6°C Dome Temp./Hum. 6.6°C / 83.0% Transparency Conditions ~~Cl.~~ hazy + some cloud 202

Focus 6.82

Spectr. Temp. ..... Dome Temp./Hum. 6.7°C 86%

CCOFMT
415 050 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Meteor Quality
					G-6065	306	6605~~9~~	1/2			
								11			
3700	2°	6.05	08e					12	KK pgm		8400
								17			
4000		605	08e					18	KK		10K
								20			
								24			
4000		1.36	B~~7~~V					25	Telluric St	2.76 Air mass	8.8K
								27			
								22			13.7K →
					Hll to Perseus & WORM						

205

Thurs/Fri

Date ..1994..Oct.13/14... Observers [T.G.]..T.n../.Sm.t./.Pm/

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc2702 27/28	Comp / Stellar	HARTMAN				≈ 00 20W	+46°	FeAr Clear	60/60
29	BIAS(4)								
30	Comp							FeAr Clear	60s
31	HD217675	22 57 18	+41 47	235032		2 18 W			1014
32	Comp							FeAr Clear	60
33	HD217675			001205					407
34	Comp							FeAr Clear	60s
35	BIAS(4)								
36 - 45	FLATS x10					2 45W	+42°	TUNG AD1/4	7sec
46	Comp							FeAr Clear	60
47	HD217675	22 57 18	+41 47	005719		3 20W			743
48	Comp							FeAr Clear	60s
49	BIAS(4)								

CCD
Spectr. Temp. −100°C Dome Temp./Hum. 9.5°C 72% RH Transparency Conditions Part. Cloudy 296

Focus 6.80

Spectr. Temp. Dome Temp./Hum. 9.1°C 70.3% RH - mostly cloudy MAX 1.0q

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 FILTER				CASS CCD	1800 l/mm G=6065	306u	6604A	3/4	focus		
								1/2			
								5			
980	3"	3.63	B6p					7	r6 pgm	cloudy	
								8			
450								9		much cloud	
								10	Sky	can see in He line	
								1/2			
								2		17K	12K
								11		PARTIAL CLEARING	
1700								12		AIRMASS 1.22	24K
									Power Temp	@ 01:30 EST	
								1/2		-07 -36	

207
pg#1 Fri/Sat

Date 1994 Oct 14/15 Observers ....Tm....rG./Hdg. checking

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc270 59/51	Comp / Stellar	HERIMAN				00 18W	+38°	Fe Ar clear	60/60
52	BIAS(4)								
53	Comp							Fe Ar clear	60s
54	HD187235	19 43 54	+38 09	182504		00 04E			146
55	~~Comp~~		Lost					Fe Ar clear	60s
55	Comp							"	"
56	HD217675	22 57 18	+41 47	183606					57
57	Comp							Fe Ar clear	60s
58	BIAS (4)								
59 – 73	FLATS x 15			20 30		00 40E	−7°	TUNG Apl/4	6sec
74	BIAS(4)								
75	Comp							Fe Ar clear	60s
76	HD217675	22 57 18	~~+~~41 47	21 00 32		00 44 E			99
77	Comp							Fe Ar clear	60s
78	Comp							"	"

CCD
Spectr. Temp. ...-100°C..... Dome Temp./Hum. +120°C....64%RH Transparency Conditions ...Fine..... 208

Focus ...6.77.....

rG class TOUR moon & Saturn seen.

Spectr. Temp. ...90's gain.... Dome Temp./Hum. .....

IHAxADY

Exp. Mtr.	Seeing	Pic. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~OG560~~ ~~Filter~~				CASSCCD	1200 l/mm G=6065	30μ	6604Å	3/4	focus test		
								1/2			
								5ci			
no filter 3950		577	B8Vm					7ci	for rG pgm	Telluric Std	22K
								~~8ci~~			
OG560								8ci			
4300		3.63	B6p					9ci	rG pgm (σ And)		10K
								10ci			
								1/2			
								2		7 secs saturated sections Not done with batch	15K
								1/2			
								11			
4200	<2"	3.63	B6p					13	σ And		12K
								~~14~~			
								14			

207

1949

Date 1994 Oct 14/15 Observers Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 27079	HD 187235	19 43 54	+38 09	21 15 53		02 54 W			467
80	Comp							FeAr Clear	60sec
81	Comp							4	4
82	HD 197433	20 38 46	+75 14 18	21 38 31		2 28 W			608
83	Comp							FeAr Clear	60s
84	BIAS(4)								
85	Comp							FeAr Clear	60s
86	HD 197433	20 38 46	+75 14 18	22 08 51		2 59 W			661
87	Comp							FeAr Clear	60s
88	Comp							11	60
89	BM Cas	00 48 36	+63 33	23 33 14		00 40 E			1498
90	Comp	~~00 48 36~~	~~+63 33~~	23 00				FeAr Clear	60s
91	BIAS(4)								
92	Comp							FeAr Clear	60s
93	HD 3765	00 35 18	+39 40	23 07 17					603
94	Comp							FeAr	60

Dewar (CCD)
Speetr. Temp. ...-101.-8°C... Dome Temp./Hum. +9.6°C ... 71.6% Transparency Conditions ... Fine ... sl. hazy ... 210:

Focus ... 677 ...

Spectr. Temp. ... Dome Temp./Hum. +7.8°C 67.7% MAX 404

Exp. Mtr.	Seeing	Proj. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter	2"	5.77	BBV	CASS CCD	G-6065	306μ	6604Å	15	Telluric Std	AIRMASS 1.18	8K
4200	~~2"~~	~~5.77~~	~~BBV~~					16	"		
								17			
7000	2"	7.8 - 8.21	G5 + KOV					19c	Hdy pgm	(Tel East side) VW cep	5K
								20			
								21ci			
7000	2"	7.8 - 8.21	G5 + KOV					22	Hdy pgm		
								23ci		Tel westside again	
7900	1-2"	8.8 - 9.3						24	Hdy pgm	"	6.2K
								25			
								1/2			
								25			
7000	1-2"	7.36	dK5					27	Std vel		
								2			

2E1
Pg#3

Date 1994 Oct 14/15 Observers TY

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CCG405 33 37	HD 3765	00 35 18	+39 40					1x	67 ms
CG405 35 39	"	"	"			00 02E	+40°	2x	133 ms
cc27095	Comp							Fe4 Clear	60
96	HD 23862	03 43 18	+25 51	23 32 07					59
97	"	"	"	23 34 11		2 57E			4
98	Comp (Brak)							Fe4r Clear	60
99	Comp	0						"	"
cc27100	HD 23862	03 43 18	+25 51	00 04 52					65
101	Comp							Fe4r Clear	60
102	BIAS (4)								
103	Comp							Fe4r Clear	60
104	HD 47129	06 32	+6 13	00 16 22		4 52E			726
105	Comp							Fe4r Clear	60
106/107	Comp / Stellar Hartman					00 26W	6°5'	"	60/60
108	Comp	Back to Plasketts *						"	60s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... s/ hazy 212

Focus ..... 6.77 .....

~~Spectr.~~ CCD Temp. ..... Dome Temp./Hum. +7.0°C 66%

Exp. Mtr.	Seeing	Plate Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	2"	7.36			G=6065	ABOVE 306a	6604A		Seeing Test	Dome west, Light East wind.	
									" "		
						~~306a~~		28c,			
860	<2	5.09	88p			306a		30			10k
800								30	kk pgm		8k
								31			
								31			
810	3"							32	kk pgm		10k
								5c,			
								1/2			
								8a			
2000	8"	6.05	08e					10	kk pgm	AIRMASS 3.8 !! Plaskett's star	3K
								11			
								3/4	focus test	set slightly for redder	
								14			

23 pg #4

Date 1994 Oct 19/15 Observers TG

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27109	HD47129	06 32	+6 13	00 48 18		4 19 E			790
H0	Comp ("Lost; Grating wheel went home)							Fe Ar Clear	60s
110	Comp @ H & hopefully, Yes							Fe Ar Clear	60s
111	HD47129	0632	+6 13	01 09 55		04 02 E			498
112	Comp							Fe Ar Clear	60s
113 — 120	FLATS x 8					00 00	-22	TUNG Clear	4 sec
121	BIAS (4)								
122/123	Comp / Stellar HARTMAN					00 00	+27	Fe Ar Clear	50/70

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .OK..... 214

Focus .677 for 6604Å .....

Spectr. Temp. ..683 for 4835Å Dome Temp./Hum. +64°C 68%H

CCD FUNT 415 0 50 1024 4,

Exp. Mtr.	Seeing	Pl. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
3200	6"	6·05	08e			30μ	6604Å	15	KK Flat	Kett (2.165 AIRMASS)	
(STILL OG560 2200					1800 l/mm G=4800		4835Å	16e	KK flat	Kett pgm	
		6·05	08e					20e			26K
								21			
								23		=	10K
								1/2			
Set 683 T=+65°C								3/4	focus test	[Right on ℄ Row 450]	

215 pg#1 Sat/Sun

Date 1994 Oct 15/16 Observers T.m. ... H.k.chatting

Emulsion Batches: .....

CSS Time still matches WWV Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC271 24/25	Comp/Stellar	HURTOMAN				00 06W	+45 12	FeNe Clear	40/60
26	BIAS(4)								
27	Comp							FeNe Clear	20
28	AC+32528-176	18 45 01	+02 58 45	18 43 27		01 47W			1963
29	Comp							FeNe Clear	20
30	BIAS(4)								
31	Comp							"	20
32	AC+8 147-294	19 30 16	+08 14 48	19 24 17		01 37W			1667
33	Comp							FeNe Clear	20
34	Comp							"	20s
35	HD716 899	22 51 48	+16 02	19 58 22		01 27E			663
36	Comp							FeNe Clear	20s
37	BIAS(4)								
38	Comp							FeNe Clear	60s
39	AC+63 37399	23 02 02	+63 23 24	20 18 10		00 57E			1892
40	Comp							FeNe Clear	60s
41	BIAS(4)								

CCD
Spectr. Temp. -100°C ..... Dome Temp./Hum. +10.3°C ... 54.5%H Transparency Conditions .. Fine ..... 21.6.

Focus ... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 400 0 50 1024 4 1 CCDFWT

Exp. Mtr.	Seeing	Fig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	S/N Quality
No Filters Temp = +9.6		Set 6.80		CASS CCD	1800 l/mm	306u	5303Å	3/4	focus test		
								1/2			
								5			
750	2"	10.7	M2					6	Vys pym	Looks Like M type	7.7/1
								7			
								1/2 8			
870	2"	10.4	M0					9	Vys pym	(Faint companion to North close East ~~of core~~ Yes (I see it))	
								10			
								11			
1830	1-2"	8.66	M2					12	Mercy Std Vel		
								13			
								1/2			
								14			
800	1"	10.8	M0					15	Vys pym	(The one with Hα Em)	
								16			

U7 pg#0 SAT/Sun

Date 1994 Oct 15/16 ..... Observers Tn ..... Hdg. checking ..

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27142	Comp							FeNe Clear	60s
143	HC+39 60670	21 32 36	+39 00 29	20 56 52		01 11 W			1847
144	Comp							FeNe Clear	60s
145	Comp							h	4
146	BD+57 2735	23 19 54	+57 20	21 34 46		00 06 W			2141
147	Comp							FeNe Clear	60s
148	BIAS (4)								
149	Comp							FeNe Clear	60s
150	BD+40 45	00 11 52	+40 23 33	22 16 29		00 24 E			986
151	Comp							FeNe Clear	60s
152	Comp							"	4
153	HD 3765	00 35 18	+39 40	22 39 08		00 36 E			375
154	Comp							FeNe Clear	60s
CG 40 43	HD 3765	00 35 18	+39 40					4x	67ms
44 – 45	"	"	"			00 31 E		2x	133ms
CC27155	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. +8.1°C 61.4%H Transparency Conditions . increasing Cloud in South 210

Focus ....6.80.....

BRT Moon to South

Spectr. Temp. ..90..... Dome Temp./Hum. .....

S/N

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHSCCD	1800 l/mm G=5115	306μ	5303Å	17			
1300	1-2"	10.17	m0					18	Vys pgm		100/1
								18i			
								19			
1600	1"	10.05	m2c					20	Vys pgm	increasing haze	>100/1
								21			
								1/2			
								27			
1500	1"	9.00	m0					23	MARCY ~~MARC~~ y std vel		
								24			
								25		CCDT = -99.6°C	
1700	1-2"	7.36	dk5					26	Reg IAU STD vel (thin cloud)		
								27			
	1-2"	7.36	dk5			Above 306μ slit			Seeing test	No Funs VERY light NE breeze	

217
pg 3

Date 1994 Oct 15/16 Observers [R.m.] J.n. Paul Holy helped.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27156 → 165	FLATS x10					00 26E	+40 08	Tung Ap 1/2	4se
cc27166	BIAS(4)								
167	Comp							Fe Ar Clear	60s
168	HD 214975	22 36 55	+56 18 24	00 07 00		03 08 W			1257
169	Comp							Fe Ar Clear	60s
170	Comp							"	"
171	HD 29587	04 34 30	+41 57	00 37 17		02 35 E			517
172	Comp							Fe Ar Clear	60s
173	Comp							"	"
174	HD 30282	04 41 06	+36 37	00 51 28		02 24 E			686
175	Comp							Fe Ar Clear	60s
176	BIAS(4)								
177 → 186	FLATS x10					02 18 E	+36 41	Tung Ap 1/4	7se
187	Comp							Fe Ar Clear	60s
188	VY Per	02 20 19	+58 28 06	01 44 42		01 21 W			2603
18	Comp							Fe Ar Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. +6.7°C 62.2% Transparency Conditions .. Part cloudy + haze 2240

Focus .. 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. 7.6.2°C 58.5%

MAX ADU

Exp. Mtr.	Seeing	Prg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 G5115	306μ	5303Å	2c;		MAX = 10K ADU	
no filter	~~2"~~				1800 l/mm G=5910	306μ	6400Å	3c;			
4050	2"	8.40	G01b					4c;	Rm pgm	1.15 Airmass 1st priority. MAX 55K	
								5			
								6	~~std vel~~		
3430	1"	7.29	dG2					7	std vel		
								8			
								9			
3450	1-2"	7.9* -8.8	F6 -G1					10	Rm pgm	*seems like 7-4 U very like HD 245 57	50K
								11			
								1/2		CCDT = -101.9°C	
								~~12d~~		MAX 12 K ADU	
								12c;		~~MAX~~	
600	1"-2"	10.8 -11.66	F5 -F9					13c+	Rm pgm	Sky too bright from moon illumination of haze	1-2/1

22
Pg #4

Emulsion Batches:
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Date 1994 Oct. 15/16..... Observers [R.M.] ..Tn.....Hdq. stacking

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27189	Comp							FeAr Clear	60s
190	BIAS (4)								
191	Comp							FeAr Clear	60s
192	HD 42545	06 06 12	+16 09	02 37 41		2 11 E			159
193	Comp							FeAr Clear	60s
194/195	Comp / Stellar.					02 08 E	+16°	FeAr Clear	60/60

Spectr. Temp. CCD −100.9°C Dome Temp./Hum. ..... Transparency Conditions Hazy again 222

Focus 6.80

Spectr. Temp. ..... Dome Temp./Hum. 7.60°C 59% H

CLAIMBDA S/N

Exp. Mtr.	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=5910	306u	6400Å	14c;		~~mA~~	~~Poor~~
								1/2c;			
								15			
8/100	1"2'	4.95	B5 V7					16c;	Telluric Std	1.3 Airmass	mA 4AA
								17c;			
								18/19	Focus test	(CCD T −100.5°C) Right on @ 420 Raw	
					All to Perseus & WORAN						

23 pgs
Sun / Mon

Date 1994 Oct 16/17 Observers Km / Tn

Emulsion Batches:

06560 filter for Comp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
C27196/97	Comp / Stellar *	Hartmann				00 27W	+45°	Fe Ar Clear	60/60
98	BIAS (4)								
99	Comp							Fe Ar Clear	60s
200	BD +45 2745 (Vys 182A)	18 32 26	+45 29 53	19 16 26		02 16W			600s
201	Comp							Fe Ar Clear	60s
202	Comp							4	60s
203	(Vys 66) AC +3 2528-176	18 45 01	02 58 45	19 36 05	19 48 15	02 23 W			730s
204	Comp							Fe Ar	60s
205	BIAS (4)			19 51					
206	~~AC +54 1780-44~~ (Vys 806B) Comp							Fe/Ar	60s
207 ~~208~~	AC +54 1980-44	18 54 12	54 22 09	20 01 23	20 23 5	02 51 W			1350
208	Comp							Fe Ar Clear	60s
209	Comp							4	4
210	(copy of Vys 8 (A8) AC+8 149-294	19 30 16	08 14 48	20 39 59		02 58 W			1747
211	AC +80 1/47-294	19 30 16	+08 14 48	21 09 41		03 16 W			1014
212	Comp							Fe Ar Clear	60s

CCD
Spectr. Temp. -100°C Dome Temp./Hum. +10.5°C 46% H Transparency Conditions Fine 229

Focus 6.85

CCDFMT for 1200l/mm
Spectr. Temp. ..... Dome Temp./Hum. 370 0 50 1024 4 1

Exp. Mtr.	Seeing	Pkg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
GG385 in Stellar Beam				CASS CCD	1200l/mm G=4500	306u	6563Å	7/8	focus test	*Note "Ghosts" in "stellar trends"	S/N
								1/2			
								3c:			
640	1"	9.83	MO					4c:	Vgs Hα	~~Hα~~ 130	130/1
								5G			
								6G			
325	1"	10.7	M2					9G			100/1
								10G			
								~~12G~~			
								12.			
290		12.0	MO					~~11~~G			
								13G			
								14G			
260	<1"	~~12~~ 13	M (type as well)					15G	Vgs Hα (	Faint Companion Star) =	60/1
640	1"	10.4	MO					16c:	Vgs Hα		
								17c:			

225
PHD

Emulsion Batches:
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Date .1994.Oct.16/17... Observers .K.M./.T.M.....

CCD Spectr. Temp
Focus.....
Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CCD7213	BIAS(4)									CCD35 Bias
214	Comp							FeAr Clear	60s	
215	AC +31 68884 (V1149 Oph AB)	22 18 56	31 57 15	21:38:30		00 50 W			630 sec	240
216	" Nothern ONE	"	"	21 52 42		01 05 W			690 sec	1PT
217	" Southern ONE	"	"	22 05 34		01 20 W			1011 sec	315
218	Comp							FeAr		
219	Comp (V1358 Sgr)							FeAr	60sec	
220	AC +63 32399	23 02 02	63 23 24	22 49 39		01 28		~~FeAr~~	1243	284
221	Comp			23:11:50				FeAr Clear	60sec	318
222	~~Comp~~ BIAS(4)									
223	Comp							FeAr Clear	60s	
224	Rosa 226	22 50.30	60 28 00	23 31 57		02 52 W			2970	346
225	Comp							FeAr Clear	60s	
226	BIAS(4)									
227	Comp			00 31 13				FeAr	60s	
~~228~~										

CCD
Speetr. Temp. ..... Dome Temp./Hum. +9.6°C 47% Transparency Conditions 2.2.6

Focus ..... 685 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... c LiNmBDA MAX ADC

Exp. Mtr.	Seeing	Prg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
GG385 in Stellar Beam				CASS CCD	1200 l/mm G=4500	306μ	6563Å	1/2			
								18c			
260	1"	10.7	Moe					1PG	Hα Vgs pgm	guided between 2 components aligned N-S sep = 1.5"	347K
185	1"	"	"					20	"	North component only	233K
359	1"	(seem SS lightly fainter than N component)						21	"		50K
								22			
								23			
584	1"	10.8	M0					24	Hα Vgs pgm	Vgs 858 Still exist Hα emission	
10358								25			
								1/2			
								26			
366	1"	13.2	M4	75/1 S/N	(620ADU max)			27	Hα Vgs pgm	(SBIG in "Focus" mode to see Dif) some thin cloud seems no Hα emission	
								28			
								1/2			
								29			

·227 Pg #3

Emulsion Batches:

Date 1994 Oct 16/17 Observers Km./Tg.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 2728	HD 1326	00 12 42	+43 27	00 34 2		01 47 W			39½
229	Comp							Fe Ar Clear	60s
230	Comp			00:55:50				"	"
231	AC+71 532	00 55 26	+71 08 49	00:57:50		01 40 W			
232	Comp							Fe Ar Clear	60s
233	Comp							"	"
234	HD 42545	06 06 12	+16 09 00	01 29 51		03 15 E			62
235	Comp							Fe Ar Clear	60s
236	BIAS (4)								
237	Comp							Fe Ar Clear	60s
238	Vys 396 B	02 30 52	+06 24 57	01 45 02		01 13 W			23 47½ 24
239	Comp							Fe Ar Clear	60s
240	Comp								
241	AC +20 821-80	02 30 14	+19 47 07	02 42 53		01 56 W			14½
242	comp			03 08 04					

Spectr. Temp. ..... Dome Temp./Hum. +9.0 38% Transparency Conditions P.C.A.T. Cloudy 2.2

Focus 6.85

Spectr. Temp. ..... Dome Temp./Hum. +8.2C 40%

Exp. Mtr. 66 385	Seeing	Rig. Mag. ✓	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1930	1"	8.07	M1Ve		1200h/m G=4500	30u	6563	3Ci	Mercury Std vel	MAX 8.7Ft	
								3Ci			
								6Ci			
1200	<1"	10.06	dM4e					9Ci	Hα Vys pgm	no obvious emission somecloud	MAX 5Ft
								12Ci			
3850	1"	4.95	B5Vn					13	Telluric Std	But Hα emission This Time !! ~~not last night !~~ ~~don't think so~~	
								14			
								1V			
								3Ci	Vys pgm	hazy	SLN
2700	1"	11.66	M					5Ci	Vys pgm Hα	SI Hazy Full moon 30° To SW >	100/1
								1			
570	1"	10.7	M2					11	Hα Vys pgm		140/1
								12			

229 pg#4

Emulsion Batches: .....

Date 1994 Oct 16/17 Observers Km/JTn .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CG 40546 – 549	HD29587	04 3430	+41 57			00 04W	+4208		
CG 550 51	"								
CC7243	Comp							FeAs Clear	64
44	HD29587	04 3430	+41 57	032432		00 12W			238
45	Comp							FeAs Clear	60
46	BH5(4)								
47	Comp							FeAs Clear	60
48	AC+51 257663	04 5058	+50 4735	034728		W			P35
49	Comp							FeAs Clear	60
50	Comp							"	"
51	HD36395	05 26 18	-03 41 00	04 1135		0023W			1069
52	Comp							FeAs Clear	60
53	Comp							"	"
54	HD 87901	10 0303	+12 27	04 41 19	04 44 39	-3 58E			200
55	Comp							FeAs Clear	60

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions . P.48.5... Cloudy.....230

Focus .....6.85.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Tg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
GG385 Filter in Stellar	<1"	7.29	dG2			306m ABOVE Slit			Seeing test	No wind NE Fan on	✓
				CHSS CCD	1200 l/mm G=4500		6563Å	~~14~~		Dome west	5.8k
1750	<1"	7.29	dG2					14	Stdvel		✓ 58k
										CCDT = -100.3°C	
								3c;			
186	<1"	10.98	M0					15	Hz Vys pyon	hazy	
								3			
550	1"	7.97	M1					16 3	Mercy Stdvel	Thick cloud	✓
2140		1.36	B0V					17	Telluric	AIRMASS 2.0	

231
pg 5

Date 1946 Oct 16/17 Observers K.m./J.T.G

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc272 56/65	FLATS x10					0 0	+12°	Tung Ap1/4	4ea
					Note GG385 Filter placed in Comparison		Filter for	FLATS,	
cc272 66/67	Comp/Stellar	HARTMAN				0 0	+12	Fe Arc Chem.	60/60
						GG 385 Filter IN			

Speetr. Temp. -100.3°C Dome Temp./Hum. ..... Transparency Conditions ..Cloudy..now...232

Focus ..6.85.....

Spectr. Temp. ..... Dome Temp./Hum. .82°C....39.5%H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1200l/mm G=4500	30μ	6563Å	6c		MAX 15.K ADC	
Note That Previous night, 1800l/mm @ 6400Å with 7sec exp had MAX of 12K.											
									1200l/m ∴ 2>2x as fast.		
Set 6.85 T=8.2°C								32/33	Focus		
		Hll to Perseus & WORM									

23

Date 1994 Oct 20/21 Observers Km/Smt

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27268/6P	COMP/STELLAR Focus Test	HARTMANN				PARKED 0°	−35°	06 560 FILTER IN COMPARISON TRAY.	
270	BIAS (4)								
271	Comp							Clear FeAr	60s
272	AC+9 166-62 (Vgs 305 AB)	22 05 46	07 24 53	23:18:02		03 07 W			1030s
273	Comp							FeAr	60s
274-283	FLAT x10					0h 2m E 66 385	390 FILTER →	Tung ¼ Ap	4
84	BIAS(4)								
85	BIAS (4)								

CCD
Spectr. Temp. -100.5°C Dome Temp./Hum. 11.8/82.3 Transparency Conditions. Partially Cloudy → VERY FAST 334
CONDITIONS CHANGING QUICKLY
Focus 6.80
Spectr. Temp. ____/____ Dome Temp./Hum. ____
370 0 50 1024 4 1 CCDFMT
GG 385 FILTER IN STELLAR TRAY

Exp. Mtr.	Seeing	Prg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ Camera	P.H.	Program	Remarks	~~Max ADU~~ Quality
				CASS CCD	1200g/mm G=4500	306μ	656311	3/4 Gi	FOCUS TEST	COMP → NO GHOSTS STELLAR → GHOSTS.	
								1			
								5 Gi		COMPARISONS HAVE "GHOST" MAKES MEASURABLY BETTER RESULTS	
								0	Vys Hα prgm ↓		
250		10.9	Mo					6 Gi		Clear @ start then through cloud.	< 500
								7			15.7K → 14.6K for flats
								8		cathode humidity 99%	
		All to Perseus & WORM						1			
								1			

235

Fri / SAT

Date 1994 Oct 21/22 Observers Smt. I.T.a

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27286	BIAS ~~(3)~~ (one only)								
87	FLAT		492	507		0 0	+33°	TUNG Ap 1/4 +ND2.0	5sec
~~88~~	~~FLAT~~								
88	FLAT		452.7				~~Filter~~ ~~+OG560~~	TUNG Clear	5 sec
89	FLAT		408.8				FILTER +OG560	TUNG Clear	5sec
90	FLAT		543	510			+ND2.0	TUNG Ap 1/4	5sec
91	FLAT		553.7					TUNG Clear	20sec
92	"		529.6					TUNG Ap	5 sec
93	"		435	533			+ND2.0	TUNG Clear	5sec
94	"		421.6				OG560	TUNG Ap 1/4	5sec
95	"		423.6				OG560	TUNG Ap 1/4	5sec
96	"		486	529			ND2.0	TUNG Ap 1/4	5sec
97	"		459.1				none	TUNG Clear	5sec
98	"		440.8				OG560	TUNG Clear	5sec

Spectr. Temp. CCD −100°C Dome Temp./Hum. +13°C 70%H Transparency Conditions 236

Focus 6.80

Spectr. Temp. 0..Cgain..... Dome Temp./Hum. APPROX = CHAMBER 0 0 CCD FMT 1024 1024 1 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1200 l/mm G=1780	306u	ZEROth ORDER		(Grating Alignment Tests)	13k max	
	Grating "E"				1200 l/mm G=3775		4900Å			MAX 1.1 k ADU	
					1200 l/mm G=5800		9300Å			MAX 4.5 k ADU	
					600 l/mm G=1780		ZEROTH			max 8.3 k ADU	
	GRATING "C"				600 l/mm G=2450		3400Å			max 0.7 k ADU	
					600 l/mm G=3200		7000Å			MAX 2.4 k ADU	
					150 l/mm G=1780		Zeroth			MAX 14.7 k ADU	
	GRATING "A"				150 l/mm G=2200		8840Å in 1st ORDER most likely			max 6.7 k ADU	
					150 l/mm G2470		7000Å 2nd ORDER			max 5.0 k ADU	
					831 l/mm G=1780		Zeroth			max 5.3 k ADU	
					831 l/mm G=3240		5200			max 4.2 k ADU	
	GRATING "D"				831 l/mm G=4500		9500Å			9.7	

237
pg #2

Date 1994 Oct 21/22 Observers Smt / Tyg

Emulsion Batches:

Filters

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination +33°	Comparison Type/Filter	Comparison Exp.
CC07299	FLAT			507	469	00	ND 2.0	TUNG Ap 1/4	5sec
300	FLAT		487.1				OG 560 ~~None~~	TUNG Ap 1/4	5sec
301	FLAT		487.5				OG 560	TUNG Ap 1/4	5sec
302	FLAT			535	538		ND 2.0	TUNG Ap 1/8	5sec
303	"		531.0				none	TUNG clear	30sec
304	"		505.8				none	TUNG Ap clear	5sec
305	Comp (Showing "GHOST" lines at blue end)						GG 385	FeAr clear	60sec

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions 2.6

Focus 6-80

Spectr. Temp. ..... Dome Temp./Hum. +12°C 73% H

Approx ± LAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	600 lm/mm G=1780	306u	Zeroth		Grating aligned	2.8K ADU	
	GRATING "J"				600 lm/mm 3100		H α			3.4K ADU	
					600 lm/mm 3800	≈ 1u 10000Å				1.5K ADU	
	GRATING "F"				1800 lm/mm G=1780		Zeroth			MAX 7.9K ADU	
					1800 G=3830	≈ 3350Å				400 ADU	
					1800 G=6700	≈ 7300Å				4.9K ADU	
	GRATING "E"				1200 G=4500		6563Å		Ghost image @ ≈ 723 Row ##		

2nd #1

SAT/Sun

Date 1994 Oct 22/23 Observers [illegible] / Smt

Emulsion Batches:

CSS Time set to WWV Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	(s) Exp.
CC27306/7	Comp/Stellar	Hartman				0h	45° 30'	Fe Ar clear	60/60
08	BIAS(4)			18 05					
09	COMP							Fe Ar clear	60
10	HD173297	18 39 24	-20 45	18 22 48		1h 51 W			950
11	COMP							Fe Ar clear	60
12	Comp							"	4
13	HD 180583	19 12	+27 45	18 49 46		1h 32 W			611
14	Comp							Fe Ar Clear	60
15	BIAS(4)			1905					
16	COMP							Fe Ar clear	60
17	HD 204867	21 26 18	-06. 01	19 08 52		0h 28 E			397
18	COMP							Fe Ar clear	60
~~19~~	~~Comp~~								
~~20~~ 19	~~HD177724~~	~~19 00 48~~	~~+13 43~~	~~19~~					
-28	FLAT x10					0h 3m W	-27° 40'	Trying to keep	1

CCD
Spectr. Temp. −100°C ..... Dome Temp./Hum. 11.2°C ..... 71.8%H Transparency Conditions ..PART. CLEAR - cloudy. 24½ PT #1

Focus .... 6.80 .....

Spectr. Temp. ..90.CGAIN.... Dome Temp./Hum. ..... LAMBDA 415 0 50 1024 4 1 CCDPHOT

Exp. Mtr.	Seeing	V Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	maxADC Quality
06560 FILTER				CHSS CCD	1800bl/mm G=5910	306μ	6400 Å	3/4	FOCUS TEST		
								1			
								5		Telescope East Side	
1500	4"	⟨V⟩= 7.48	~60Ib					6	V350 Sgr Rm pgm	through haze cloud at end	3150
								7			
								8			
2058	3"	6.19	FGI-D6					9	V473 Lyr Rm pgm	1.49 day period Some cloud tel. E side	4380
								10			
								1			
								11			
2282		2.91	60Ib					12	RV Std.	through cloud. tel. E side	4350
								13			
								~~14~~			
									~~Feltart~~		
								14			15K → MK

pg #2

Date 1994 Oct 22/23. Observers [Rm]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 27329	Comp							FeAr Clear	60sec
330	HD 204770	21 25 48	+66 22 00	22:00:48		2 25 W			294
31	Comp							FeAr Clear	60s
32	BIAS (4)				22 08				
33	Comp							FeAr Clear	60s
34	HD 203156	21 15 24	+37 49	22 13 18		2h 48 W			394
35	Comp							FeAr Clear	60s
36	COMP							"	"
37	HD 180583	19 12 00	27 45 00	22 26 25		5 09 W			645
38	Comp							FeAr Clear	60s
39	COMP							"	"
40	HD 214975	22 36 54	56 19 00	22 44 37		2 42 W			3000
41	COMP							FeAr Clear	60
42	BIAS (4)			23 41					

Spectr. Temp. ..... Dome Temp./Hum. +10.3°C ... 76%H Transparency Conditions ... PCAT cloudy ... pg 2 of 2

Focus ... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr. Filter	Seeing	Pkg Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	MMT ADS Quality
OG560				CCD55	1800/mm G=5410	306	6400Å	15		Telescope westside now	
2777	3"	544	B7V					16	Telluric Std	(Obs list) Air mass 1.15	7K
3250	2-3"	5.8 -5.9	F2						V1334 Cyg Rm pgm		8K
								20			
3029	4"	(V) 6.19	F6I -IIb					21	V473 Lyr Rm pgm	S/N ~ 260:1 (2nd exp tonight)	5.5K
								22			
								23			
2880								24	Rm Z Lac pgm	S/N ~ 250:1	5660
								25			
								1			

:24 pg# 3

Emulsion Batches:

Date 1994 Oct 22/23 Observers [Rm]/Tn/Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27343	COMP							FeAr Clear	60
44	HD25361	03 56 42	58 23 00	23 44 39		2h 09 E			1360
45	COMP							FeAr clear	60
46	COMP							"	"
47	HD29587	04 34 38	41 57 00	00 15 24		2h 20 E			1005
48	COMP	[Be* careful of using this comparison]					*	FeAr clear	60
49	BIAS(4)								
50/51	COMP/STELLAR HARTMANN					0h	42° 30'	FeAr Clear	65/60

Spectr. Temp. ..... Dome Temp./Hum. 9.0°C / 8.3% Transparency Conditions . clear, humid .....

Focus ..... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. +8.7°C 87.0%

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Quality~~
06 560 FILTER				CASS CCD	1800 l/mm 6=5910	306μ	6400 Å	26			
2780		7.30 → 8.07	F6Ib → 62Ib					27	RX Cam Rm pgm		7K
								28			
								5			
2800	2"-3"	7.29	d62					6	RV Std.		
								7		* Dome & Tel Telescope moved 10 days ± 25m in ra	
								1			
		All to	WORM & Perseus.					3/4	FOCUS TEST		

245 pg #2 sun/mon

Date 1994 Oct 23/24 Observers [illegible] / Smt / Tu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cc27 35 3/53	Comp/Stellar	HURTMAN				00 06 W	+43 06	FeAr Clear	60/60
54	BIAS(4)								
55	COMP							FeAr Clear	60
56	HDE 235679	21 55	+54 00	20 58 17		1 25 W			2032
57	Comp							FeAr Clear	60s
58	COMP							"	"
59	HD211211	22 10 30	42 28 00	21 37 55		1 24 W			564
60	COMP							FeAr Clear	60s
61	BIAS(4)				21 49				
62	Comp							FeAr Clear	60s
63	HD187235	19 43 54	+38 09	21 53 37		4 09 W			649
64	Comp							FeAr Clear	60s
65	Comp							"	"
66	HD217675	22 57 18	41 47 00	22 10 22		1h 1 W			58
67	Comp							FeAr Clear	60s
68-87	FLAT x 20					1h 4m W	42°	Twilight	6

CCD Spectr. Temp. set to −100°C Dome Temp./Hum. +11.5°C 62%H Transparency Conditions Clearing 246

Focus 6.77

CCD Spectr. Temp. −101.7°C Dome Temp./Hum.

DOME FANS OFF
CCD FMT
415 0 50 1024 4 1

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	MAX ADU Quality
OG560 filter				CASS CCD	1800 l/mm G-6065	306μ	6604 IIIa-F	3/4c.	Focus Test		
								1/2c			
								5			
1426	4"	8.86	B2.5Ib					6	B/n pgm		9K
								7			
								8			
4800		5.68	A2Vm					8	Telluric Std	1.03 Air mass at end	11K
								9			
								1/2			
								10			
4500	4"	5.77	B8Vn					11	Telluric Std	highest air mass = 1.040	9K
								12			
								12			
3465		3.63	B6p					13	Eg pgm	0 And.	8.7K
								14			→
								15			12.3K →

247 pg #2

Date 1994 Oct 23/24 Observers [Bh]/Snt/Ta

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27388/89	Comp/Stellar					01 05W	+47 18	FeAr Clear	50/70
90	BIAS(4)			2231					
91	Comp							FeAr Clear	60s
92	HD1061	00 09 48	+8 16	22 35 35		00 29W			978
93	Comp							FeAr Clear	60s
94	Comp							4	4
95	HD37017	05 30 24	-04 34	23 04 28		04 16 E			1358
96	Comp							FeAr Clear	60s
97	BIAS(4)			23 29					
98	Comp							FeAr Clear	60s
99	HD1061	00 09 48	+8 16	23 33 48		01 26 W			900
cc27400	Comp							FeAr Clear	60s
01	COMP							11	11
02	HD37017	05 30 24	-04 34	00 01 36		03h 18 E			1360
03	COMP								

Spectr. Temp. ..... Dome Temp./Hum. +9.8°C ... 65.6% Transparency Conditions ... Fine ... 246

Focus .. 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMEDA MAX ADC

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				C455CD	1800 l/mm G:4558	306μm	4475Å	3/4	focus test	(Right on)	
								1/2			
BG 39 Filter in								5c:			
8000	4"	615	A9s					6c:	Bln pgm	CCI Psc	4.4K
								7c:			
								7c:			
2400	6-10"	6.56	B2V					11	Bln pgm.		1.3K
								1/2c:			
								14			
8280		615	A9s					15	Bln pgm	CCI Psc	4.4K
								16			
								16			
4100		6.56	B2V					17	Bln pgm	"170/1 S/N	2.1K
								18			

249
Pg#3

Date 1994 Oct 23/24 Observers [Bln.]/Tn./Smt...

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD7404	BIAS(4)			00 30					
05	comp							FeAr Clear	60
06	HD10611	00 09 48	08 16 00	00 33 05		2h 27 W			976
07	Comp							FeAr Clear	60s
08	Comp							"	4
09	HD37017	05 3025	-04 34	00 5622		2 31 E			930
10	Comp							FeAr Clear	60s
11	Comp							"	4
12	HD10611	00 09 48	08 16	01 19 05		3 15 W			1094
13	Comp							FeAr Clear	60s
14	BIAS(4)				01 44				
15	HD10611	00 0948	08 16	01 45 04		3 40 W			1078
16	Comp							FeAr Clear	60s
17	Comp							"	"
18	HD37017	05 3025	-04 34	02 1026		1h 17 E			903
19	Comp							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 8.3°C/67.7% Transparency Conditions clear 250

Focus 6.82

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAM3DA	P.H.	Program	Remarks	~~MAX ADU~~ ~~Quality~~
				CASS CCD	1800 l/mm G=5910	306μ	4475 Å	1			
								18			
7480	4"	6.15	A9s					19	Bln UV Pol pgm.	> 200/1 S/N	4K
								20			
								21		CCDT = -101.6°C	
4600	4"	6.56	B2V					11	Bln pgm		
								12			
								12			
8250	3-5"	6.15	A9s					13	Bln UV Pol pgm		
								14			
								1/2			
5400	4-7"	6.15	A9s					15c	Bln UV Pol pgm		
								16			
								18	Bln pgm		
4875	4"	656	B2V					11c			

25f
pg #4

Date 1994 Oct 23/24 Observers [Bln] Th. / Smt

Emulsion Batches:
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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27420	COMP							FeAr Clear	60
21	HD21364	03 21 42	+9 23	02 31 47		1h 2m W			280
22	COMP							FeAr Clear	60
23	BIAS(4)				02 38				
24	Comp							FeAr Clear	60s
25	HD37017	05 30 25	-4 34	02 43 44		0h 42m E			990
26	Comp							FeAr Clear	60s
CG40 552-555	HD35476	05 19.9	+43 55	03 14				4x	67ms
CG40 556-57	"	"	"			00 19E		2x	133ms
CC27427/28	Comp / Stellar	HOAT MAN				00 13E	+44°	FeAr Clear	70/100
CC27429	Comp							FeAr Clear	60s
30	HD37017	05 30 25	-4 34	03 32 45		00 06 W			983
31	Comp							FeAr Clear	60s
32 → 51	FLATS x20					00 11W	-4 32	TuNG Clear	15sec
52	BIAS(4)			04 07					

CCD

Spectr. Temp. −101.3°C Dome Temp./Hum. +7.5°C 71.9% Transparency Conditions Mostly Clear 252

Focus 6.82

Spectr. Temp. ..... Dome Temp./Hum. +6.8°C 77.5% Complete Cloud by 4

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39 Filter					1800 h/mm G=4552	306u	4415A	14			
22200		366	B8p					22.	Bln pgm		11K
								23			
								1/2			
								24			
5920								11	Bln pgm		3.5K
								24			
	poor 4"?	748 V	K0 III		ABOVE	306u	slit		Seeing Test Dome west		
									Light west wind		
Dome T = +6.8°C								3/4c	focus test	(set slightly for warmer)	
								25c			
5250	3"	656	B2V					11c	Bln pgm		
								26			
								27		14K MAX	
								1/2			

2945

Emulsion Batches: .....

Date 1994 Oct 23/24 Observers [Blan].T.../Sm...

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27453	COMP							FeAr Clear	60s
54	HD37017	05 30 25	-04 34	04 15 31		00 50 W			1033
55	COMP							FeAr Clear	60s
56	Comp							"	"
57	HD 36079	05 24 00	-20 50	04 38 52		01 07 W			
58	Comp							FeAr Clear	60s
59	Comp							"	"
60	HD37017	05 30 25	-04 34	04 49 39		1h 22 W			849
61	Comp							FeAr Clear	60s
62	BHS(A)								

CCD
Spectr. Temp. -101.5°C ... Dome Temp./Hum. 6.9°C / 75.8% Transparency Conditions partly cloudy ... 254
Focus 6.82 Lots of Cloud again
Spectr. Temp. ... Dome Temp./Hum. 6.5°C / 77.2%

Exp. Mtr.	Seeing	~~Pig.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CL4m3uA	~~P.H.~~ C.	Program	Remarks	~~max 300~~ Quality
BG39 Filter				1455 CCD	1800 l/mm G=4558	316u	4475 Å	28			
4720	4"	6.56	B2V					11	Bln pgm.		
								29			
								~~30~~			
		V 2.84	G5II					30	Std vel		
								31			
								10			
1880	4"	656	B2V					11	Bln Pgm		2450
								12			
								1/2			
				HH to Persons & WORM							

255

Emulsion Batches:

Date 1994 Oct 25/26 Observers J.H.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc074 63/64	Comp / Stellar	HARTMAN		≈ 00 20		0 0	+33°	FeAr Clear	70/100
65/66	Comp / Stellar	HARTMAN				0 0	"	"	60/60
67/68	Comp / Stellar	HARTMAN				"	"	+ OG 560	60/66
69/70	Comp / Stellar	HARTMAN						+ BG 39	60/60
71/72	" "	"						FeNe Clear	5/8
73/74	" "	"						FeAr Clear	30/30

CCD
Spectr. Temp. Lette. -120°C ... Dome Temp./Hum. +6.3°C .. 67.7 Transparency Conditions .....

Focus ..... Dome closed

~~Spectr. Temp.~~ ..T.C. Cgain .... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~682~~ T= +6.3		set 6.82		CASS CCD	1800 ln/mm G=4558	306	4475Å	1/7	focus Tests	set for too warm a temp	
					1800 ln/mm G=6065		6604Å	3/4	" "	set just Right	
T= +6.2°C		set 682			1200 ln/mm G=4500		6563Å	1/2	" "	1st ORDER - set slightly warm	
T= +6.0°C		Set 682			1200 ln/mm G=5960		exactly 4862	3/4	Hjeta focus test	2nd ORDER Right on	
T= 6.8°C		Set 690			600 ln/mm G=2545		~~3790~~Å	5/6	focus 1st ORDER	A50 0 50 1024 41 COMPUT set 51 too warm still	
T= 5.7°C		Set 690			600 ln/mm G=3100		6563Å	7/8	focus 1st ORDER	Right on	

257
pg #1

Wed / Thurs

Date 1994 Oct 26/27 Observers J.n., ... Hdy. checking

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27475	Comp			2255		0408E	-845	FeAr Clear	60s
	~~HD~~								~~66s~~
476	HD33328	05 0422	-0853	230804					177
477	HD33328			231233		345E			418
478	Comp							FeAr Clear	60sec
(488) 479	BIAS(4)								
~~480~~ 487	FLATS x 9					335E	-846	TUNG Ap 1/4	6sec
cc27489	Comp							FeAr clear	60s
90	HD33328	05 0422	-0853	233744		321E			413
91	Comp							FeAr Clear	60s
92	Comp							〃	〃
93	HD213998	22 3013	-00 3759	235353		339W			1027
94	Comp							FeAr Clear	60
95	BIAS(4)			0017					
96/97	Comp/Stellar Hart			0026		0027W	+25°	FeAr Clear	60/60

CCD
Spectr. Tem
Focus ..6
Spectr. Tem

Exp. Mtr.
No Filter
65
539
700
140
3090
Sp 45

CCD
Speetr. Temp. −100°C ..... Dome Temp./Hum. +62°C ... 73.9% Transparency Conditions ... Cloudy ... mostly ... 2%

Focus .. 6.82 .....

CCDFMT
415 0 50 1024 4 1

Speetr. Temp. .. 90 cg4in ..... Dome Temp./Hum. 15.5°C ... 77.3% MAX ADU

C LAIMBOA

Exp. Mtr.	Seeing	Plate Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filter				CASSCCD	1800 l/m G=6065	30μ	6604Å	3ci			
65	6"	~~427~~ ~~B2IV~~					6604Å	~~4ci~~	~~λ Eri~~	much cloud Abort!	
539		427	B2IV				6604Å	5ci	λ Eri	out of Cloud a bit more max	HA 300
700								6ci		3.5 AIR MASS - cloud TOO	450
								7ci			
								1/2		CCD T = 100.3°C	
								8ci		MAX 12K ADU	
								9			
5140		427	B2IV					10	λ Eri	HA peaks = light 2.97 AIR MASS	4.2K
								11 CO			
								11			
2090		4.02	B9IV −V1					12	Telluric STD	2.30 (mid exp) AIR MASS	1.7K
								13			
								1/2	Then Dewar Topup		
59 + 5.5°C		Set 6.82						13/14	Then focus		

259
pg #2

Emulsion Batches: .....

Date 1994 oct 26/27 Observers Jn ..... Initi. (a bit) .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27498	Comp							Fe Ar Clear	60s
499	HD33328	05 04 22	-085300	00 35 07		02 21 E			487
500	Comp							Fe Ar Clear	60s
501	BIAS(4)								
502	HD 33328			00 49 38		02 05 E			
503	Comp							Fe Ar Clear	60s
504	Comp							"	"
505	HD33328	05 04 22	-085300	01 09 14		01 51 E			270s
506	Comp							Fe Ar Clear	60s
507 - 513	FLATS x 7					01 44 E	-8 47	Tung A#1/4	6 sec
514	BIAS(4)								
515	HD33328	05 04 22	-0853	01 26 03		01 28 E			604
516	Comp							Fe Ar Clear	60s
517	Comp								
518	HD87401	10 03 03	+12 27	02 37 21		05 36 E			267
519	Comp							Fe Ar Clear	60s

Spectr. Temp
Focus ... 6:
Spectr. Temp

Exp Mir	S
no filters	
870	
3160	
1755 K	
830	
1250	

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .. Cloudy 260

Focus ... 6.82 .....

Spectr. Temp. ..... Dome Temp./Hum. .+4.9°C ... 81%

max ADU

Exp. Mtr.	Seeing	Rtg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
no filters				CASSCCD	1800 l/mm G=6065	30μ	6604Å	.			
890		4.27	B2 IV					16	λ Eri	2.09 Air mass	
								17			
								1/2		CCDT = −100.3 C	
9000								18	λ Eri	Blue Hα peak slightly higher	7K
								19			
					1800 l/mm G=5920	30μ	6410Å	20c		±15Å overlap with 6604Å region	
19.5K		4.27	B2 IV					21c	λ Eri	To get Si 6347Å lines	11K
								22			
								23			13K
								1/2			
800		4.27	B2 IV					24	λ Eri		
								25			
								26c			
7700		1.36	B7 V					27	Telluric	4.6 AIR MASS Much cloud	44

261 pg 43

Emulsion Batches:

Date 1994 Oct 26/27 Observers T.H. Holy checking till 3:30 Dome getting wet on way.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
520	BIAS(4)								
CC27521	Comp							Fe Ar Clear	60s
22	HD 33328	05 04 22	-08 53	02 45 22		00 16 E			197
523	Comp							Fe Ar Clear	60s
524	Comp							Fe Ar Clear	60s
525	HD 33328	05 04 24	-08 53	03 06 55		00 04 W			123
526	Comp							Fe Ar Clear	60s
527									
536	FLATS x10					00 12 W	-08 47	TUNG Clear	4 sec
537	HD 33328	05 04 22	-08 53	03 20 20		00 20 W			269
538	Comp							Fe Ar Clear	60s
539 /40	Comp / Stellar					00 00	+33°	Fe Ar Clear	90/120

Spectr. Temp. ..... Dome Temp./Hum. +4.7°C 81.2% H Transparency Conditions ... Part. Cloudy 262

Focus ..... 6·82 ..... 6·86 for H Beta

Spectr. Temp. ..... Dome Temp./Hum. +4.5°C ....

MAX

Exp. Mtr.	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G = 5920	306μ	6410Å	29			
13,400		4·27	B2IV					30	λ Eri		
								29			
Filter BG 39 Set focus →		686			1800 l/m G = 4800		4835Å	17c			
6600		4·27	B2IV					19c.	λ Eri.	@ H beta	3·8K
								~~20c~~			
								22c		MAX 11K ADU	
13,200								23c.	λ Eri		12·5K
								26c			
4·5°C		6·86						13/14	focus	OK, set was too cool	
		All to		worm & Perseus.							

263
pg #1

Date 1994 Oct 27/28 Observers Km/Smt

Emulsion Batches:
06 560 in comp tray
GG 385 filter in stellar tray

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 2754 42	COMP/STELLAR HARTMANN							FeAr clear up	40/60
543	BIAS (4)								
544	Comp							clear FeAr	60
545	Vys 841 AC +18 1074 -6	22 23 56 ~~16 25 18~~	18 25 18 ~~22 23 56~~	19 09 14		-0 00 E			700
546	comp.							FeAr clear	60
547	comp							FeAr clear	60
548	HD 216899 (Vys 854)	22 51 48	16 02 00	1 30 08		-1 14 E			200
549	Comp							FeAr	60
550	comp							FeAr	60
551	Vys 343 AC +3 2781-116	23 03 00	02 47 05	1 45 00		-00 56 E			1200
552	comp.							FeAr	60
553	Bi AC (4)			19 36 38					
554	comp Vys 860			20 14 21				FeAr	60
555	AC +1 1074-115	23 11 42	19 04 39	20 16 36		0h 30 E			1374
556	comp							FeAr clear	60

ED

Spectr. Temp. -100.5°C Dome Temp./Hum. 7.7°C/..... Transparency Conditions hazy, bright sky. 262

Focus 6.88

Spectr. Temp. ..... Dome Temp./Hum. .....

DOME FANS OFF
400 0 50 1024 41 ccdfmt

Exp. Mtr.	Seeing	Pilot Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max ADU Quality
				CASS CCD	1200 ℓ/mm G=4500	30μ	6563Å	4/3	FOCUS TEST		
								1			
								5			
200	2"-3"	10.7	M0					6	km EU453 Hα standard emission	HARD TO FIND!! S/N~80	max 950 ADU
0								7			
								8			
310		8.6	M2					9		S/N~110	max 1600 ADU
								10			
9800								11			
277		10.9	M0					12			
								13			
								1/2			
								14			
310		11.1	M0					15			1100
								16			

265
Pg # 2

Date 1994 Oct 27/28 Observers KM/SMT

Emulsion Batches:
06 560 filter 7 comp tray
06 385 " " stellar "

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27557	BIAS(4)			20 45					
558	COMP								
559	Vys 870 B AC+11 1710 - 70	23 48 28	+11 33 07	20 52 18		-0 10 E			2 hr
560	Comp								
561	BIAS(4)			21 46					
562	COMP								
563	Vys 351 AC +17 303 - 138	00 03 19	+16 52 12	21 52 26					910
564	comp							FeAr	60
565	comp							FeAr	60
566	BD-9 40 Vys 385	00 12 34	-01 14 23	22 26 48					800?
567	comp			22 48 33				FeAr	60
568	BD-9 40 Vys 385	00 12 34	-01 14 23	22 52 25					1272
569	comp								
570	bias (4)			23 17 06					
571	comp							FeAr	60
572	AC-06 2360-60 (Vys 385)	01 58 29	-05 23 23	23 32 13					980

Spectr. Temp. ..... Dome Temp./Hum. 6.6°C / 67.7 Transparency Conditions clear

Focus 6.88

Spectr. Temp. ..... Dome Temp./Hum. 5.6°C / 74.0

Exp. Mtr.	Seeing	√ Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Peak Alt. Quality
				CASS CCD	1200 l/mm G=4500	308μ	6563Å	1			
								17			
310	1"	12.2	MO					18	km's Ex-gas? Ha emission search.	∃ emission	
								19			
								~~20~~ 21			
								20			
		10.73	MO					21			4000
								22			
								23			
245		10.98	MO					24		bright star line & what appears to be Hα	~660 1200
								25	CSS 386 rebooted due to Desqview failure.	no emission this time.	
300		10.98	MO					26			
								27			
								1			
								28			
200		11.2	M					29			800

267 pg #3

Date 1994 Oct 21/28 Observers Km / Smt

Emulsion Batches:
GG 5 Gel filter in comp tray
GG 385 " " stellar "

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27573	comp			23 ~~51~~ 30				Fe Ar clear	60
574	~~comp~~ bias (4)			00 25					
575	comp.							Fe Ar clear	60
576	AC+45 99 130-216	03 02 48	+45 21 1P	00 31 0P	~~00 22 E~~	-00 22 E			500
577	Comp							Fe Ar clear	60
578	comp.							" "	"
579	AC+11 20-183	02 38 56	+10 32 07	00 49 55		0h 27 E			180
580	comp								
581	AC+11 20-183 ~~comp~~ comp	"	"	01 08 39		1h 05 W			180
582	~~AC +26 7021~~	~~02 46 32~~	~~+26 33 59~~						
583	comp								
584	AC +26 7021 Uys 406	02 46 32	+26 33 59	01 57 07		1 20 W			480
585	comp							Fe Ar	60
586	~~comp~~ bias (4)			02 17					
~~587~~	~~Uys 406 comp~~								
587	Comp							Fe Ar	60

Spectr. Temp. −101.7°C Dome Temp./Hum. 5.3°C / 15.0% Transparency Conditions fine 268

Focus 6.88

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~poor~~ Quality
				CASS CCD	1200 l/mm G=4500	30μ	6563Å	30			
								1/2			
								5			
258		10.2	MO					6	Km SUVs? H2 emission search		1170
								7			
								8			
152	2"	10.98	MO					9		emission! @ H2	1250 @ Hα
								10			
~~280~~ 280	"	"	"					9		emission	2175 @ Hα
								10			
								11			
11P		10.8	MO					12			
								13			
								13			

267
pg #4

Date 1994 Oct 27/28 Observers Km/Smt

Emulsion Batches:
DG 560 FILTER IN COMP TRAY
GG 385 " " STELLAR "

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Tem Mtr.
CC27588	AC +2 2282-5 (V=5.430)	03 42 47	02 29 10	02 19 12		00 45 W			40	38
589	comp							Fe Ar Clear	60	
590	comp							"	"	
591	~~AC~~ BD -09 956 (V=9.452AB)	04 35 43	-09 23 20	02 44 05		0h 16 W			240	104
592	comp							Fe Ar Clear	60	
593	COMP							"	"	
594	HD 33328	05 04 22	-08 53 00	02 56 12		0h 2m E			60	300
595	COMP									
CG40558-61	HD 35476	05 19 54	43 56 00			0h 2m E			.067	
62/63	"	"	"						.133	
CC27596-605	FLAT x 10				GG 385 FILTER	0h 2m W	44° N	Tung 1/4 Ap Fe Ar clear	4	
606/607	COMP/STELLAR HARTMANN				IN COMP TRAY	"	"			

CCD
Spectr. Temp. -101.7°C ..... Dome Temp./Hum. 4.9°C / 78.6% Transparency Conditions ..hazy. / humid..... 2400

Focus .....6.88.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Rec. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality 400
98		~~11.2~~	M0					14			
								15	Km {V455} Hα emission		
								16			
~~240~~ 104		10.3	M0					17		no emission	440
								18			
								19			
4300		4.27	?					20	rG (λ Eri)		10K
								21			
		7.48	K0 III					–	SEEING TEST	Dome W, light to med. S wind, clear,	
		"	"					–	"	92% catwalk humidity, above 30%	
				GG 385 FILTER NOW IN				22		DOME DRIPPING. ∴ CLOSE	15.5K → 14.3K
				COMPARISON TRAY				3/4	FOCUS TEST		
		All to	Persons	& WORM							

27/29 #1

Emulsion Batches:

Date 1994 Oct 28/29 Observers [Rm.] Smt ..... Kon. as backup

06560 FILTER

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc27608/9	COMP/STELLAR HARTMANN					9m W	+43°	FeAr clear	60/60	
10	BIAS(4)			18 09						
11	COMP							FeAr clear	60	
12	HD180583	19 12 00	+27 45	18 29 37		1h 48m W			1400	1572
13	COMP							FeAr clear	60	
14	BIAS(4)			19 01						
15	COMP							FeAr clear	60	
16	HD196504	20 32 48	26 07 00	19 04 09		0h 55m W			1000	958
17	COMP							FeAr clear	60	
18-27	FLAT x 10					0h	+2° 39'	Tung ¼ Ap.	7	

Night #1

Spectr. Temp. -101.7°C Dome Temp./Hum. 10.8°C / 60.8% Transparency Conditions: thin cloud all over 272
thicker on horizon (of course)
Focus 6.79
Spectr. Temp. Dome Temp./Hum. 10.7°C / 59.3% @ close.
DOME FANS ON
415 0 50 1024 4 1 ccdfast

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	~~P.H.~~	Program	Remarks	~~Image Qual~~ ADU
60/60				CASS CCD	1800 l/mm 6=5910	306μ	6400Å	3/4			
								1/2			
60								5			
1800	1872	6.19	F6I -IIb					6	Rm PGM	a bit spread out. S/N > 200:1	4300
60								7			
								1/2			
60								8			
1000	958	5.59	B9V					9	Telluric Std.	thicker cloud now SG	1700
60								10			
7								11		CLOSED DOME DUE TO CLOUD.	14.95K → 13.81K

All to Persons & WORM

279
pg#1 Wed - Thurs

Date 1994 Nov 2/3 Observers Tn./Smt. for [KK]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CEG82096	INBOARD/OUTBOARD	HARTMANN				03 02W	+9516	ThAr	~~30~~ 20
202	BIAS(4)				18 40.				30/18
03	COMP							ThAr	15
04	HD182640	19 20 30	02 55 00	18 45 23		02h 22 W			1868
05	COMP							ThAr	15
06	Comp							?	4
07	HD183912	19 29 54	+2755	19 23 06		02 51W			1660
08	Comp							ThAr	15s
09	BIAS(4)				19 52				
10	COMP							ThAr	15
11	HD196524	20 32 54	+14 15	20 37 04		03 06W			2084
12	Comp							ThAr	15
13	BIAS(4)				21 13				
14	Comp							ThAr	15s
15	HD202109	21 08 42	+29 49	21 18 15		03 07W			1819
16	Comp							ThAr	15s

Spectr. Temp. -102.2 Dome Temp./Hum. 7.9°C / 58.5% Transparency Conditions .. hazy - cloudy partly 274

Focus .248

Spectr Temp. (GAIN) 90.cg.2in Dome Temp./Hum. +5.9°C 70.0%H CLAMBDA ccdfmt 0 0 256 1024 91 (redundant) 1 hour

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle Tilt	X Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				ECHCLLECD 12.17.80	1200l/mm .4460	60u 600u H2	3960Å	3/4	60u width = .277 micrometer		
								1/2			
								3			
1944	2"-3"	B= 3.68	F0IV					4	KK	Redest ORDER →	~500
								3			
	¢							3			
3140	2"	B= 4.2	K5II?					5	KK		550
								3			
								1/2			
								3		Comp MAK	8K
1950	.3"	V= 3.78	F5IV					6	KK		460
								3			
								1/2			
								3c			
3080	2-3"	B 4.2	G8II					4c	KK	UV Std	550

275
pg#2 Wed/Thurs

Date 1994 Nov 2/3 Observers [illegible] Tn/Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
ce0827	Comp							ThAr	15se	
18	HD215182	22 38 18	+29 42 00	21 54 32		02 12 W			1741	340
19	Comp							ThAr	15se	
20	BIAS(4)									
21	Comp							ThAr	15s	
22	HD217675	22 57 18	+41 47	22 30 17		02 36 W			2170	300
23	Comp							ThAr	15s	
24	Comp							ThAr	15s	
25	HD6582	01 01 36	+54 26	23 17 35		01 22 W			2464	600
26	Comp							ThAr	15s	
27	BIAS(4)									
28	Comp							ThAr	15s	
29	HD6961	01 05	+54 37	00 07 45		02 04 W			2144	300
30	Comp							ThAr	15s	
31	Comp							"	"	

CCD
Spectr. Temp
Focus ...2...
Spectr. Temp

CCD
Spectr. Temp. -102.0°C... Dome Temp./Hum. +5.7°C....70.9%H Transparency Conditions ...mostly clear.... 276

Focus ...248.....

Spectr. Temp. ..... Dome Temp./Hum. .....

C LAMBDA MAX 404

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	X Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CCD 17.80	1200 l/mm .4460	60μ W 600μ H	3960Å	3c			
3400	2"	B 3.8	G8II + F?	?				5c	kk pgm		800
								3c			
								1/2			
								3c			
3500	1.5"	B 3.6	B6p					6c	kk pgm	o Andromeda	
								3c			
								3c			
600	1.5"	B 5.81	G5Vp					4c	kk pgm		370
								3c			
								1/2			
								3			
1,200	2"	B 4.50	A7V					5c	kk pgm	some cloud	930
								3c			
								3c			

277
p943

Wed / Thurs

Date 1.9.94 Nov 2/3 ..... Observers [KK] ... J.n. / Smt. .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
ce 08232	HD34029	05 09 18	+45 54	00 50 37		01 47 E			423
233	Comp							ThAr	15
234	HD34029	05 09 18	+45 54	01 00 36					550
235	Comp							ThAr	15
236	HD34029	05 09 18	+45 54	01 11 34		01 25 E			502
237	Comp							ThAr	15
238	BIAS (4)			01 22					
239	Comp							ThAr	15
240	HD209790	22 00 54	+64 08	01 33 30		6h 32m W			1800
241	COMP							ThAr	15
42	BIAS(4)				02 16				
43	COMP							ThAr	15
44	HD29316	04 32 00	+53 17	02 22 14		00 51 W			2225
45	Comp							ThAr	15
46	HD29316	"	"	03 01 38		01 26 W			1929
47	Comp							ThAr	15

CCD Spectr. Temp. −100.5°C ..... Dome Temp./Hum. +5.4°C ... 74% H Transparency Conditions ..thin cloud..... 278

Focus ...·248.....

CCD Spectr. Temp. ..... Dome Temp./Hum. ..... mHx

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. Echelle	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
9,700		V 0·08	G5 III + G0 III	CCD 17·80	1200 l/mm ·4460	60μ width 600μ H	3960	6c;	KK pgm	Capella	3400
								3			
11,000								4c;	KK pgm		3,200
								3			
11,200								~~6c;~~	KK pgm		
								3c;			
								1/2c;			
								2c;	Tel Eastside now.		~~300~~
365	2"	B 3·8	G8 III? + F ?					5c;			200
								3			
									Tel W side now		
	1½"							3			
420	1·73"	V+B 5·36	A5 m					6c;	KK pgm.		420
								2c;		∠ of 3c.	
400	1-3"							6c;	KK pgm		
								3c;			

279 pg# 4 Wed/Thurs

Date 1994 Nov 2/3 Observers [illegible] Th./Sat

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ce08248	BIAS(4)				03 36				
249	Comp							ThAr	15s
250	HD47105	06 31 54	+16 29	03 47 13		0h 1m W			1176
251	Comp							ThAr	15s
52	COMP							"	"
53	HD33328	05 04 22	-08 53 00	04 16 41		2h 4m W			1418
54	COMP							ThAr	15s
55	BIAS(4)			04 43					
56	Comp							ThAr	15s
57	HD29139	04 30 12	+16 19	04 48 56		2h 59m W			806
58	Comp							ThAr	15s
59	COMP							"	"
60	HD81797	09 22 42	-08 14	05 11 46		1h 12m E			1833
61	COMP							ThAr	15
62	BIAS(4)				05 44				

Spectr. Temp. ..... Dome Temp./Hum. +4.8°C ... 76.5% Transparency Conditions ... Quat. Cloudy, hazy 280

Focus ... 248 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... c LAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst. ~~echelle~~	× Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	~~Quality~~
				17+80	1200m/mm 14460	60u H 600u H	3960Å	1/2			
								~~2~~			
4091	5"	B 19.	A0 IV					4c	H+K pyn		2400
								3			
								3			
462	4"	V= 4.27	B2 IV					5	λ Eri		
								3			
								2c:			
6530	4"	V 0.85	K5+ III					5c:	Std Vel		350
								3c:			
								3		CCDT = −101.8°C	
3415	4"-6"	V= 1.98	K3 II-III					6	Std vel.	through thick haze.	450
								3			
								1/2			

294 pg #5

Date 1994 Nov 2/3 Observers [illegible] Stat. Ast.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD8263	Comp							ThAr	15
64	HD62509	07 39 12	+28 16	05 50 12		00 45 W			460
65	Comp							ThAr	15
CCD8266 —270	FLATS x	5				03 24 W	+5 45°	TUNG	140s
271	BIAS(4)				06 28				
272 /73	Inboard / Outboard		Hartman				+15 45	ThAr	30/18
				Nov 3/4/94	00	128 1024	8 1 CCD Emt		
CCD8274/75	Inboard / Outboard		Hartman	19 08		≈3 00 W	≈35°	ThAr	30/39
CCD82 76/77	Inboard / Outboard		Hartman	1924		3 00 W	≈35°	ThAr	30/40

CCD Spectr. Temp. −100.8°C ..... Dome Temp./Hum. +3.0°C ... 83% H Transparency Conditions ... Clouding in now 28Aj

Focus ... .248 .....

Spectr. Temp. ..... Dome Temp./Hum. +3.2°C ... 83% H

MAX

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1200 l/mm	60u W 600u H	3960 A				
825	4"	B 214	KO III b					4 c;	Std vel		320
								3 c;			
						60u width 800u Height = .185		5 c;		CCD T = −101 °C	5 000
						600u Height = .205					
								1½ c;	focus test	0 0 1281024 8 1 CCD FMT for Focus (Set for slightly warmer T)	
		All to Perseus & WORM.								CCD T @ TOP UP = −98.5°C	
T = +9.8°C		Set = .248 still untouched, seems Right though				60u width 600u Height		1½ c;	focus Test	CCD T = −118°C	
T = +10.0°C		set .245					3960 A	3/4	focus test	CCD T = −100 °C . but OK Right	
							Also to	Perseus &	WORM. Nov 4/94		

284

Sun / Mon

Date 1994 Nov 6/7 ..... Observers Tn ..... Ian & Paul checking

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC276 28 29	Comp / Stellar	Hartman				CO 24W	34°	FeAr Clear	60/60
30	BIAS(4)								
31	~~HR~~ 15	1994.5 00 0806	+290336	21 3138					61s
32	Comp at HR15 position							FeAr Clear	60s
33	Comp	@ START (Telescope pos'n)				encoders	also logged	FeAr Clear	60s
34	Cloud / Sky	00 05	−8 45	21 4148		0432E	−845		825
35	Comp							FeAr Clear	60s
36	Comp							"	"
37	40 33 328	05 0422	−08 5300	22 1500		0358E			552
38	Comp							FeAr Clear	60s
39	BIAS (4)								
→ 40 49	FLATS × 10					0350E	−17°	TuNG Ap 1/4	6sec

Spectr. Temp. -100°C (CCD) Dome Temp./Hum. +6.7°C 56%H Transparency Conditions Mostly cloudy 2.84

Focus 6:79

Spectr. Temp. ..... Dome Temp./Hum. +6.6°C 63.7%H

[Caught some rain But was low down then] MAX AM

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
No filter in				CASS CCD	1800 l/mm G=6065	306u	6604Å	3/4	focus		
								1/2			
		V 2.06	*BSP Hg Mn					5	*Just a test But looked ODD as it should be?	Telescope Encoder Normalization Star	
								6			
								7			
1260	Drive turned off at ~ 21.52							8c	Cloud near	End of when clocking started Eri	750
								9c			
								10cg			
2750	8"	V 4.27	B2 IV n					11c	AG pgm + (But	3.90 AIR MASS @ end "KOK" PART-MOSTLY cloudy improving → exp end)	Hd 1300
								12			
								1/2			
								13/14			14K
				All to workers persons and me. Tm							

Exposure Exp

285

Mon / Tues

Date 1994 Nov 7/8 Observers MK / Tues. + Student Demo

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc7650	BIAS(4)								
51	Comp							FeAr Clear	60s
52	SKY (Cloudy)	2 20 30 @ START	-9 40 45	19 12 21		DRIVE OFF 00 00	-9 41		989
53	Comp							FeAr Clear	60s
54 → 63	FLATS x10					00 00	-9 41	TUNG Ap 1/4	6 sec
64	Comp							FeAr Clear	60s
65	SKY (Cloudy, Uniform still)	20 37	-9 40 30	19 48 44		02 01 W			991
66	Comp							FeAr Clear	60s
67	BIAS(4)								
68									
69	Comp / Stellar HARTMAN					00 52 E	+29 10	FeAr Clear	60/60
70	Comp								
71	HR15	19915 00 08 06	+29 03 36	20 34 42					762
72	Comp							FeAr Clear	60
73	SKY (again)		-0 13	9 11 42					
74	Comp		-0 17				-10 13	FeAr Clear	60s
75	BIAS(4)								

Spectr. Temp. CCD ~100°C ..... Dome Temp./Hum. +8.7°C ... 64 68 H Transparency Conditions ..Cloudy. but dry..... 276

Focus ....6.79.....

Spectr. Temp. ..... Dome Temp./Hum. +8.0°C ..... 64 58 H

C LAMBDA MAX

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
no filter				CASS CCD	1800 l/mm G=6065	60u	6604 P	1/2			
								3			
1150								4	Test of Sky lines (done as on previous night)		455 Bleed
								5c;			
								6c;			< 1 St
								7c;			
1020								8c;	Sky	Cloud not un. form a Flayer Hrls west ie DARKER at 3 hr west	
								9c;			
T=+8.2°C		set	6.79					10/11	focus test.		
								12			
26500		V 2.06	B9P Hg Mn					14	Demo for Students	Part Cloudy	
								15			
					All to Persons & WORK			16	Sky again	bright Cloud	
								17c;			
								12			

287
19th #1

Emulsion Batches:

Date 1994 Nov 10/11 Observers [Bln] /Smst ..... iks/Bln as backup

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27676/77	COMP/STELLAR HARTMANN					0^h	$+44°$	Fe Ar clear	40/70
678	BIAS(4)				20 40				
79	COMP	1994.5						Fe Ar clear	60
80	HR 15	00 08 06	29 03 36	20 51 05		0^h 13 E			54
81	COMP							Fe Ar clear	60
82	HR 15			20 58 19		0^h 3^m E			260
83	COMP							Fe Ar clear	60
84	BIAS(4)				21 12				
685→704	FLAT x 20					0^h 10^m W	$+29°$	Tung clear	15
705	COMP							Fe Ar clear	60
06	BD+26 3835	20 09 36	+26 27 00	21 49 43		5^h 7^m W			1665
07	COMP							Fe Ar clear	60
08/09	COMP/STELLAR HARTMANN					0^h	$+43°$		
10	BIAS(4)				23 18				

CCD
Spectr. Temp. −100.2°C Dome Temp./Hum. 2.6°C / 57.5% Transparency Conditions: cloudy → mostly clear with BB some fast moving clouds → Increasing cloud

Focus 6.87

Spectr. Temp. ..... Dome Temp./Hum. 1.8°C / 58.5% FANS ON

430 0 50 1024 4 1 ccdfast max 100

Exposure Exp	136 34 Exp. Mtr. FILTER	Seeing	V ~~Pig.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMSHELL	Ci ~~P.H.~~	Program	Remarks	Quality
4:30					CASS CCD	1800 ℓ/mm G=4558	300μ	4475Å	3/4	FOCUS TEST	hot @ cd. 25 !!	
									½			
60									5			
54	11 000		2.06	B9 P Mg Mn					6	α And. [Blk]	through cloud — tried to spread out signal.	4000
60									7			
260	17 430								8	α And Blk	through cloud S/N ~ 350:1	10 K
60									9			
									½		5 FAN OFF NOW	
15									10		hot shows up !!! ← well, maybe only one ! was called for.	14 K → 13.5K
60									11			
465	349		8.6 −9.3	B8					~~12~~ 8	Blk	through thick cloud. not much hope for it.	—
60									13		GRATING REMOVED & REPLACED	
						1800 ℓ/mm G=4558	300μ	4475Å	3/4	FOCUS TEST.	6.89 @ 1.8°C	
									½			

289 Pg #2

Emulsion Batches:

Date 1994 Nov 10/11 Observers [Bln]/Smt ...iks/Hdy as backup

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27711	COMP							Fe Ar Clear	60
12	BD+26 3835	20 09 36	+26 27 00	23 35 02		$6^h 54^m$ W			600
13	COMP							Fe Ar clear	60
14	BIAS(4)				00 10				
15	COMP							FeAr Clear	60
16	HD37017	05 30 25	-04 34	00 24 20		$1^h 52^m$ E			900
17	COMP							FeAr Clear	60
18	COMP							"	"
19	HD1061	00 09 48	+08 16 00	01 05 17		$4^h 09^m$ W			900
20	COMP							FeAr clear	60
21	BIAS(4)				01 23				
22	COMP							FeAr clear	60
23	HD37017			01 32 41		38^m E			1260
24	COMP							FeAr clear	60
25	COMP							"	"

CCD Spectr. Temp. -100.5°C Dome Temp./Hum. 15°C/51.7% Transparency Conditions. clear again 290

Focus 6.89

Spectr. Temp. Dome Temp./Hum.

N FAN ON

430 0 50 1024 4 4 coadds

Exp. Mtr. 1/6 39 FILTER	Seeing	~~Pig~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Pig~~ Quality
				CASS CCD	1800 l/mm G=4558	306μ	4475 Å	14			
317	~10"	8.6-9.3	B8		Tel. E side			15	Bln DR Vul	seeing is horrendous way low on horizon	
								16			
								1/2			
								17			
509F	~4"	6.56	BZII					18	Bln		2600
								19		— break to get food. 10 min.	
								20			
5385	~5"	6.15 ~~6.56~~	A1s					21	Bln UV Psc		2100
								22			
								1/2			
								23			
7245	~3"	6.56	BZII					~~18~~ 18	Bln		4.3K
								~~25~~ 19			
								23			

291 pg #3

Emulsion Batches:

Date 1994 Nov 10/11 Observers [Bln] / Smt Hdy as backup

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27726	HD1061	0 09 48	+08 16	(SORRY TOM) 02 08 08		$5^h\ 2^m$ W			330
27	COMP							FeAr clear	60
28	BIAS(4)				02 30				
29	COMP							FeAr clear	60
30	HD37017	05 30 25	-04 34	02 37 53		$0^h\ 21^m$ W			900
31	COMP							FeAr clear	60
32	COMP							"	"
33	HD21364	03 21 42	+09 23 00	03 03 04		$2^h\ 43^h$ W			229
34	COMP							FeAr clear	60
35	BIAS(4)				03 10				
CG40564-7	HD40722	05 55 40	+43 22 39						.067
68/69	"	"	"		03 27				.133
36	COMP								
37	HD37017	05 30 25	-04 34	03 35 37		$1^h\ 24^m$ W			1200
38	COMP								

CCD
Spectr. Temp. ...-100.4°C... Dome Temp./Hum. 0.0°C/58.4% Transparency Conditions .. clear.....

Focus .....6.89.....

Spectr. Temp. ..... Dome Temp./Hum. -0.4°C/59.8% @ seeing test.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	~~P.H.~~ C	Program	Remarks	~~Max 400~~ Quality
1400	~5"	6.15	A9s		Tel E	Side.		24	Bln	TOOK A WHILE TO GET TELESCOPE REVERSED	~680
				CASS CCD	1800 l/mm 6=4558	30μ	4475Å	25		Hot saturated.	
								1/2			
								26			
5520		6.56	B2 V					27	Bln		2800
								28			
								"			
19000		3.66	B8p					29	Bln	hot @ 15.3K	10K
								30			
								1/2			
206, 189, 185, 199	~5"							-	SEEING TEST	DOME W, LITE NNW WIND, ABOVE 30μ CLEAR, AFTER CLOUDY STRETCH	
250, 241								-	"	5 HOURS AGO. ~5" N fan on	
								26			
6990		6.56	B2 V					27	Bln		3500
								28			

293
pg # 4

Date 1994 Nov 10/11 Observers [Bln] Smt Hdy. backup.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27739	BIAS(4)				03 59				
40-59	FLAT x 20					$1^h 30^m$ W	−4°	Tung clear	15
60	COMP							FeAr clear	60
61	HD37017	05 30 25	−04 34 00	04 37 31		$2^h 28^m$ W			1300
62	COMP							FeAr clear	60
63	BIAS(4)				05 06				
CG40570-8	HD70647	8 18 00	+42 20						.067
74/75	"				05 22				.133
64	COMP							FeAr clear	60
65	HD37017	5 30 25	−04 34	05 31 50		$3^h 18^m$ W			1060
66	COMP							FeAr clear	60
67/68	COMP/STELLAR HARTMANN					$0^h 1^m$ E	+42°	FeAr clear	40/70
69	BIAS(4)				06 09				

Spectr. Temp. ..... Dome Temp./Hum. -0.6°C/60.0% Transparency Conditions ..clear..... 2004

Focus .....6.89.....

Spectr. Temp. ..... Dome Temp./Hum. -0.4°C/59.8% @ seeing test

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	~~Quality~~
				OMS CCD	1800 l/mm G=4558	30μm	4475Å	1/2			
								1			15.5K →15K
								17			
6285		6.56	BZV					18	Bln	S/N ~ 205:1	2900
								19			
								1/2			
164, 177, 157, 166, 225, 218		6.18	gK5					–	SEEING TEST	Dome W, light NW wind, clear	
								–	#2	above 30μm N fan on	
								17			
4686		6.56	BZV					18	Bln		
								19			
								19/20	FOCUS TEST	comp shifted stellar stage/same } relative to other	6.89 focus test
				All to Perseus & WORM							

295
pg #1

Fri/Sat

Date 1994 Nov 11/12 Observers [Bln] Tn / Smt

Emulsion Batches:

CSS noted to be 6 secs ahead of WWV time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 77 70/71	Comp/Stellar	Hartmann				00 13W	+45 15	FeAr Clear	60/60
72	BIAS(4)				17 45				
73	COMP							FeAr Clear	60
74	HD196504	20 37 19	+26 06 50	18 03 03		0h 41m W			560
75	COMP							FeAr Clear	60
76	Comp							"	"
77	Nova Cyg 92	20 27 43	+52 17 39	18 23 37		1h 35m W			2182
78	Comp							FeAr Clear	60
79	BIAS(4)				19 03				
80	COMP							FeAr Clear	60
81	NOVA CAS 93	23 36 59	+56 57 45	19 08 30		0h 50m E			2180
82	COMP							FeAr Clear	60
CG40516-9	HD 218525	23 03 36	+44 01 00						.067
80/81	"				20 00 or so				.133
83	BIAS(4)				20 00				
84-803	FLAT x 20					22h 36m W	+26° 30'	Tung V4 Ap	1

CCD Spectr. Temp. -101.8°C Dome Temp./Hum. +4.4°C 51.4%H Transparency Conditions Fine 296

Focus 6.84 FANS OFF

Spectr. Temp. ..... Dome Temp./Hum. ..... LAMBDA IIR 7974 Tel normalization 5c

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter				CASS CCD	1800l/mm G=6035	30μ	6563Å	3/4			
								1/2			
								6			
6300	<2"	V 5.54	B9V					7	Telluric Std.		12.3K
								8			
								8½			
57	<1"	* Faint						9c.	Nova Cyg 92	* ok for guiding CCD insignificant	280 data 0/3
								10			
								10½			
								11			
100	<1"							12	Bin		
								13			
225, 222, 199, 222		6.34	A0					—	SEEING TEST	DOME O, NO WIND, CLEAR, HAZE, 5.6μm. FANS OFF. GREAT.	
228, 237		"	"					—		"	
								12½		spec controller failed - twice.	
								14			15.4K → 14.9K

297 pg # 2

Date 1994 Nov 11/12 Observers rm [Bln] Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27804	COMP							FeAr Clear	60
05	HD196504	20 32 49	+26 06 50	20 28 23		03 06 W			512
06	COMP							FeAr Clear	60
07	Comp							FeAr Clear	60
08	HD196504	20 32 49	+26 06 50	20 43 55		03 20 W			407
09	Comp							FeAr Clear	60
10	Comp							"	4
11	HD180583	19 12	+27 45	20 56 33		4 55 W			507
12	Comp							FeAr Clear	60
13	BIAS(4)			21 08					
14	Comp							FeAr Clear	60
15	HD331970	20 08 27	+32 34 16	21 12 01		4 40 W			2033
16	Comp							FeAr Clear	60
17	Comp							"	"
18	HD 203156	21 15 24	+37 49	21 52 46		3 45 W			300
19	Comp							FeAr Clear	60

CCD Speetr. Temp. -100.5°C Dome Temp./Hum. 2.4°C / 63.7% Transparency Conditions CLEAR... BETTER THAN FINE 2.0

Focus 6.84 Pg #2

Spectr. Temp. ..... Dome Temp./Hum. ..... MAX

Exp. Mtr. (O2 560 Filter)	Seeing	Ptg: Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion (CLAMBDA)	P.H. (CI)	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=6035	306μ	6563 Å	15			
6000	1-2"	5.59	B9 V					16	Telluric Std.	AIR MASS 1.30 @ START	12.5K
								17			
					1800 l/mm G=5400		6400 Å	18			
4660	2"	5:59	B9 V					19	Telluric Std.		10.5K
								20			
								50			
4830	3"	6.19	F6 I-Ib					21	Rm pgm	V+3 Lyr	10.5K
								22			
								1/2			
								22			
1380	1-2"	9.1 -9.8	F8 -G2 Ib					23	Rm pgm	MW Cyg	7K
								24			
4590	1½"	5.8 -5.9	F2					25	Rm Fg m		9.5K

299
Pg#3

Date 1994. Nov. 11.12..... Observers [Rm.]...T.G./Smt.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27820	BIAS(4)								
21	Comp							FeAr Clear	60s
22	HD214975	22 36 54	+56 M	22 12 28		3 13 W			
23	Comp							FeAr Clear	60s
24	Comp							"	"
25	VY Per	02 20 19	+58 28 04	22 56 04		0 12 W			2225
26	Comp							FeAr Clear	60s
27	BIAS(4)			23 36					
28	VY Per	02 20 19	+58 28 04	23 37 27		0 57 W			2026
29	Comp							FeAr Clear	60s
30	Comp							"	"
31	HD22L368	23 34 48	+505	00 21 56		3 52W			168
32	COMP							FeAr Clear	60
33	BIAS(4)				00 30				
34	COMP							FeAr Clear	60

CCD
Spectr. Tem
Focus....6
Spectr. Tem

Exp. Mtr.
1576 Clear
179
277
275

CCD
Spectr. Temp. −100.5 °C. Dome Temp./Hum. +2.3°C 67.5% Transparency Conditions .. Fine, some haze 300

Focus ... 6.84 ...

Spectr. Temp. ... Dome Temp./Hum. ...

pg#3

max

Exp. Mtr.	Seeing	Pig Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter				CASS CCD	1800 l/m G=5410	30μ	6400Å	1½			~~45K~~
								26			
278	2"	8.40	GOIG					27	Rm pgm		4.4K
								28			
								29			
277	1"-2"	10.8 -11.66	F5 -~~F9~~					29c.	Rm pgm	65/1 S/N increasing cloud	350 slow ~~Bad~~
								30s			
								1½			
275	1"-2"	10.8 -11.66	F5 -F9					Fc.	Rm pgm	Clear-Rec Thin time	
								10s			
?	3"	4.13	FIV					12	Std vel		
								13			
								½			
								15			

30" pg #4

Date 1994 Nov 11/12 Observers [Rm]/Tn/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc21835	HD25361	03 56 42	+58 23	00 45 37		$0^h 18^m$ W			1800
36	COMP							Fe Ar Clear	60
37	BIAS(4)				01 20				
38	COMP							Fe Ar Clear	60
39	HD30282	04 41 05	+36 32 36	01 24 34		$0^h 09^m$ W			1500
40	COMP							Fe Ar Clear	60
41	COMP							"	"
42	HD44990	06 19 48	+7 08	01 59 03		$1^h 4^m$ E			900
43	COMP							Fe Ar Clear	60
44	BIAS(4)				02 17				
45	COMP							Fe Ar Clear	60
46	HD32963	05 01 48	+26 12 00	02 23 24		$0^h 55^m$ W			1900
47	COMP							Fe Ar Clear	60.
48	BIAS(4)				03 08				
49	COMP							Fe Ar Clear	60

Spectr. Temp. ..... Dome Temp./Hum. +1.0°C / 71.5% Transparency Conditions ..clear, little hazy 302

Focus ..... 6.84 ..... pg #4

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ clambda	~~P.H.~~ C1	Program	Remarks	Quality
5845		7.30 -8.07	F6Ib -G2Ib	CASS CCD	1800 l/mm G=5910	306μ	6400 Å	16	Rm RX Cam		13.3K
								17			
								½			
								18			
4500		B=7.9 -8.8	F6 -G1					19.	Rm AW Per		9.6K
								20			
								20			
5250		B=6.5 -8.0	F7Iab K1Ib					21	Rm T Mon		13.7K
								22			
								½			
								24			
2175	3"-4"	7.72	G2II					25	RV Std.		4.4K
								26		ope comb. reset itself.	
								½			
								28			

303
Pg #5

Date 1994 Nov 11/12 Observers [Rm] Tn [Smt]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc21850	HD42818	06 07 48	+69 21	03 11 59		$0^h 6^m$ W			300
51	COMP							FeAr Clear	60
52	COMP							"	"
53	HD29587	04 34 30	41 57 00	03 28 14		$2^h 18^m$ W			1400
54	COMP							FeAr Clear	60
55/56	COMP/STELLAR	HARTMANN				0^h	+42°	FeAr Clear	60/60
57-66	FLAT x 10					"	"	Tung & Ap	7
67	BIAS(4)				04 13				
68/69	COMP/STELLAR	HARTMANN				0^m	+42°	FeAr Clear	40/40
70	COMP							FeAr Clear	60
71	HD42111	06 03 48	+02 31 00	04 48 27		$1^h 52^m$ W			300
72	COMP							FeAr Clear	60
73	HD42111 (comparison)			04 57 13		$1^h 59^m$ W			200
74	COMP							FeAr Clear	60
75	BIAS (4)				05 08				

CCD Spectr. Temp. −101.3°C Dome Temp./Hum. +0.4°C / 29.7% Transparency Conditions little bit of thin cloud. Some pg 5

Focus 6.84 / 6.92

Spectr. Temp. ..... Dome Temp./Hum. .....

ccdfmt 4150 50 1024 4 1

06 560

Exp. Mtr. FILTER	Seeing	V Pix. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion CCIIIaJ04	P.H. C.	Program	Remarks	max ADU Quality
4190	3-4"	4.80	A0Vn	CASS CCD	1800 l/mm G=5410	306μ	6400Å	29	Telluric Std.		13.9K
		480	A0Vn					30			
								11			
3000		7.29	d62					12	RV Std.	CCD STARTING TO WARM AT END OF EXPOSURE	6.1K
								13		CCD T = −95°. ∴ PARTIAL TOPUP	
				T=+0.2°	6.84 FOCUS			17/18	FOCUS TEST	DURING FOCUS TEST.	
								14		FILL TUBE STILL IN, HOSE IS THAWING.	14.8K →15.9K
								½			
BG 39 FILTER				CASS CCD	1800 l/mm G=4558	306μ	4475Å	3/4	FOCUS TEST	430 0 50 1024 4 1 ccdfmt 6.92 @ +0.5°C	
								6			
2000	5"	5.73	A3Vn					7	Wde A-stell	brightest of triplet. S/N > 100	1100
								8			
636		→6.9						9	Wde A-stell	2nd brightest one	450
								10			
								½			

305 pg #6

Date 1994 Nov 11/12 Observers [Wde] Tn / Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27876	COMP							FeAr clear	60
77	HD66141	07 57 06	+2 36	05 27 03		00 44 W			682
78	COMP							FeAr Clear	60
79	Comp							"	"
80	HD77190	08 55 54	+28 18	05 46 21		00 01 W			528
81	Comp							FeAr Clear	60
82 →90	FLATS x 9					00 05W	+28°	TUNG Clear	15
91	BIAS(4)								
92/93	Comp / Stellar HARTMAN					00 05W	+28°	FeAr Clear	40/70
	1994 Nov 12/13	Focus Tests		Scaling / Tilt Relation.					
cc27894/95	Comp / Stellar HARTMAN			23 04		00 12W	+30°	FeNe Clear	30/50
cc27896	FLAT							TUNG Clear	10s
cc27897/98	Comp / Stellar HARTMAN							FeNe Clear	30/50
99	FLAT							TUNG Clear	10s
cc27900	BIAS (4)								

CCD
~~Spectr.~~ Temp. -101.2°C Dome Temp./Hum. -0.2°C / 84.3% Transparency Conditions clear., high humidity 3%

Focus 6.92

Spectr. Temp. ..... Dome Temp./Hum. 0.00 83.6%H

B6 39 Exp. Mtr. FILTER	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	P.H. Ci	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=4558	30µ	4475Å	11			
12000	2"-3"	V 439	K2 IIIa +F2-0.5					12	Stdvel		5.8K
								13			
								14			
4910	3"	V 607	A8V n					15	Wide A star		22K
								20c			
								15			15K
								1/2			
T= 0.00								24/26	focus test		
				All to Perseus & WORM						CCD Font 415 050 1024 4	
T= +6.7°C set 6.95					1800 l/mm G=4558	30µ	4475Å	1/2	focus Test + CCDT=-100°C		
								3			
T= +6.7°C set 6.85								4/5		In focus Rav #438	
								6			
								7c			

367

Continued from end of last page

Date 1994 Nov 12/13 ... Observers Jn .....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc2790 02	Comp/Stellar	HURTMAN				00 12W	+30°	FeNe Clear	30/50
03/04	Comp/Stellar	HURTMAN						FeAr Clear	60/60
05/06	"		"					"	"
07/08	Comp/Stellar	HURTMAN		[FOR This set,	The focus set was taken To High number,				
09	FLAT							TUNG Ap 1/4	5 sec
10/11	Comp/Stellar	HURTMAN				00 12W	+30°	FeAr Clear	40/60
12/13	"	"	"			"	"	"	"
14	FLAT							TUNG Ap=1/8	6 s
15	BIAS								
16/17	Comp/Stellar	HURTMAN						FeNe Clear	10/20
18/19	"	"			00 40				10/20
20	FLAT							TUNG Clear	10s

Spectr. Temp. ..... Dome Temp./Hum. +6.7°C .. 74% H Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +6.7°C .. 75.5% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Set	6.75	T=6.7°C		CASS CCD	1800 l/mm G=4310	306u	4101Å	8/9ci	focus tests		
Set	6.75	T=6.7°C			1200 l/mm G=6130		6670Å	10/11			
	6.65	T=6.7°C			"		"	12/13			
									Note All up to This point were set by progressively setting to		
	6.85	T=6.7									
and then	set to	6.85	from	much higher	set #	(backlash)		14/15	lower set numbers.		
								16c			
+6.7°C	Set	7.00	CASS CCD	600 l/mm G=310	306u	6600Å	17/18	focus test	*450 0 70 1024 41 [ccdfmt		
+6.7°C		6.80					19/20	* Firm	↳ Note. Nov 26, about mounting of grating and effect on Y origin		
							21		MAX 11K ADU		
							22				Fq
+6.7°C		7.10			600 l/mm G=2510		3600Å	23/24	"C" Grating		
+6.7°C		6.90						25/26			
								27		MAX 10K ADU	

307 pg #1

Emulsion Batches:

Date 1994 Nov 15/16 Observers B.M./T.A.

CSS 14 secs ahead of WWV Time.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC279 21/22	Comp / Stellar Hartman					00 28W	+45 13	FeAr Clear	40/70
23	BIAS(4)								
24	Comp							FeAr Clear	60s
25	HD192518	20 10 12	+28 24	17 55 58		01 13W			595
26	Comp		(CSS 386 Time set to correct WWV Time)					FeAr Clear	60s
27	Comp							FeAr Clear	60s
28	HD210459	22 05 33	+32 41 15	18 15 31		00 27E			347
29	Comp							FeAr Clear	60s
30	BIAS(4)								
CG40 582 585	HD 207754	21 46 12	+43 25					4x	67ms
CG40 586 587	HD 207754					00 05W	+43 50	2x	133ms
CC279 31	Comp							FeAr Clear	60s
32	BD+26 3835	20 09 36	+26 27	18 44 00		02 41W			284
33	Comp							FeAr Clear	60s
34	BIAS(4)								

CCD
Speetr. Temp. —100°C Dome Temp./Hum. +6.1°C 58%H Transparency Conditions Part. cloudy 3.10

Focus 6.90

CCD
Speetr. Temp. —100.-3°C Dome Temp./Hum. +4.4°C 65.5%H

c LAMARR 415 0 50 1024 4 1 CCDFLAT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39 Filter in				CASS CCD	1800 l/mm G=1558	306μ	4475Å	3/4c	focus.		
								11/2			
								5c			
10,800	4"	B= 5.36	A7 III m					6c	Wide A stellpgm	(S/N ≈ 250/1)	4.7k
								7c			
								8c			
12,800	4"	B 4.75	F5 III					9c	A stellpgm (Wide)		5.0k
								10c			
								11/2c			
					Above	306μ	slit		Seeing Test	Dome West, no wind	
		V 7.32	K0 III		"	"	"		" "	No FAINTS tonight.	
								11			
1720	4"	8.6 -9.3	B8					12	B/n pgm	Intermittent cloud around 19:20	S/N 100/1
								13			
								1/2			

3.19.
Pg #2

Emulsion Batches:
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Date 1994 Nov 15/16 .... Observers Blair / Tan .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC27935	Comp			1941				FeAr Clear	60s
36	HD222368	23 3448	+5 05	194250		0024E			681
37	Comp							FeAr Clear	60s
38 — 46	FLATS x 9					0020E	+20°	TUNG Clear	13s
CC27947	BIAS(4)								
48	Comp							FeAr Clear	60s
49	HD2364	03 2142	+9 23	20 2023		0333E			677
50	Comp							FeAr Clear	60s
51/52	Comp / Stellar HARTMAN					0026	+17°	FeAr Clear	40/70
53	BIAS(4)								
54/55	Comp / Stellar					0016E	34°	FeAr Clear	20/40
56	Comp							FeAr Clear	40
57	HD206267	21 3554	+5702	21 0403		254W			392
58	Comp							FeAr Clear	40
59	BIAS(4)								

CCD
Spectr. Temp. −100.3°C ..... Dome Temp./Hum. +4.3°C 66% Transparency Conditions . Half cloudy 3/2

Focus . . 6.90 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 415 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks For 1800 l/mm	Quality
BG 39				CASS CCD	1800 l/mm G=4558	30u	4475Å	14			
9000	4"	V 4.13	F7V					15	Std Vel	some cloud ~~Star ~1600~~	MAX 5K
			F5					16			
								17		12.6 k 104 max	
								1/2			
								18			
20350	6"	B 3.66	B8p					19	Bln pgm	some cloud	MAX 9K
								20			
T = +40°C, Set 6.90				1800 l/mm	~~600 l/mm G=2650~~	30u	~~4475 4300Å~~	3/4		not ~~Half Cloudy~~ ~~450 0 50 1024 4 1~~	
					600 l/mm		4300Å	1/2		CCDT = −99.3°C	
T = 40, Set 6.96					600 l/mm G=2650			3/4	focus Test	* 450 0 50 1024 4 1 CCD FMT	
MAX = 2K for comparison								5		(* 430 more cool)	
4000	4"	5.83	065V					6	0 Star pgm	ΔA −00 00 10 ΔS −00 00 48 S/N 300/1	MAX 7.5K
								7			
								1/2			

313 pg#3

Emulsion Batches:

Date 1994 Nov. 15/16 Observers Bla / Tu

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27960	Comp							FeAr Clear	40s
61	HD 206183	21 35 18	+56 32	21 17 14		3 21 W			1187
62	Comp						+53° Ap=1/2	FeAr Clear	40
63 – 65	FLATS x 3					2 10 W		TUNG ~~Ap Clear~~ FeAr Clear	8 sec 60s
66	Comp								
67	HD 218915	23 06 42	52 31	22 12 02					1720
68	Comp							FeAr Clear	60s
69	BIAS(4)			23 49					
70	Comp							FeAr Clear	40s
71	HD 5005	00 47	+56 05	22 55 52		2 10 W			26
72	Comp							FeAr Clear	40s
73	Comp							FeAr Clear	40
74	HD 17505	02 43 24	+60 01	23 49 12		0 48 W			1617
75	Comp							FeAr Clear	40
76	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +3.8°C 69% Transparency Conditions ..OK.. (Full Moon Bright)

Focus ....G-96.....

Spectr. Temp. ..... Dome Temp./Hum. +3.8°C 69% CCDFmt 450 0 50 1024 4 1

*If not proper Y origin use 430

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
BG39 Filter				CASS CCD	600m G-2650	306	4300Å	8			
2750	5-8"	7.54	09.5V					9	Blu 0*		
								10			
								11		MAX 15.6K ADU	
								~~14~~	CCDFmt Changed. 430 0 50 1024 4 1		
5040		7.20	09.5 Tab					15	0* Blu	Thin cloud for part of exposure	8K
								16			
								18			
2700	6"	B 7.85	06.5V					19	Blu 0*	2 close companions ? to South & Southeast	S/N 250/1
								20			
								20			
2850	4-8"	B 7.46	06.5 V(E)					21	Blu 0*	some cloud	
								22			

315 PyD4

Date 1994 Nov 15/16 .... Observers [B.Ln] I.Tn .....

Emulsion Batches:
.....
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc27977	Comp							Fe4r clear	40
78	HD3712	00 34 48	+55 59	00 31 12 ~~00 37 02~~		3 ~~H~~ W		37secs	~~40~~ 37s
79	Comp							Fe4r Clear	40
80 – 82	FLATS x 3					3 18W	+56°	TUNG Ap1/2	8sec
83 84	Comp / Stellar Hartmann					0 0	+29°	Fe4r Clear	40/70
85	B/AS(4)								

CCD
Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... Part. Cloudy, South Part 23g

Focus ... 6.96 ..... 430 0 50 1024 4 1 CCDFMT

Spectr. Temp. ..... Dome Temp./Hum. 3.6°C 73% Note "Hot" pixel, Row #144 effects columns 19 through 29 in This CCDFMT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG34 3.7k		V 2.23	KOIT a		600 l/m G 2650	306u	4300Å	23			
~~BG34~~								~~23~~	Std Vel	26c:	
								27			
								28		MAX 15K ADU	
T= 3.6°C Set 6.96						306u		29/30	focus test	(Just about Right)	
								1/2c.	- Then Topup		
				All to warm Persens.							

317
pg #1

Wed / Thurs

Date 1994 Nov 16/17 Observers Tu [Bln]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC279 86/87	Comp / Stellar	HURTMAN				00 14W	+45 16	FeAr Clear	60/60
88	BIAS(4)								
89	Comp							FeAr Clear	60s
90	HD 187235	19 43 54	+38 09 00	18 06 32		01 54W			5 43
91	Comp							FeAr Clear	60s
92	Comp							"	"
93	HDE 235679	→ It's in Encoder HD catalogue 21 55 00	+54 00	18 22 52		00 33W			1566
94	Comp							FeAr Clear	60s
95	BIAS(4)								
96	Comp							FeAr Clear	60s
97	HD 217675	22 57 18	+41 47	19 14 48		00 20 E			65s
98	Comp							FeAr Clear	60s
99 CC28018	FLATS x20					00 10E	+42 17	Tung H 1/4	6s
28019	Comp							FeAr Clear	60s
20	HD 223094	23 41 30	+28 09	19 43 46		00 31E			300s
21	Comp							FeAr Clear	60s

CCD
Spectr. Temp. -100°C ..... Dome Temp./Hum. 5.9°C 57.5% Transparency Conditions ... Fine 318

Focus ... 6.83 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CCD FMT (goal column centering)

CLAMPS 415 0 50 1024 4 1

Exp. Mtr.	Seeing	Eff. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
OG560 Filter				CASS CCD	1800 lines/mm G=6065	30μ	6604Å	3/4	focus		MAX ADU
								1/2			
								5c;			
4420	2'-3"	5.77	B8 V_n					6c;	Telluric Std	AIRMASS = 1.07	7.9K
								7c:			
		V 8.86	~~B2.5 Tb~~					8c:	Sp Bin Blk		
1600	2'-3"	V 8.86	B2.5 Tb					9ci	Sp Bin Blk	A+H2→	9.0K
								10c.			
								1/2c.		CCD T = -100.4°C	
								11			
4200		3.63	B6 p					12	Rg pgm		
								13			
								14			13K
								15			
2460	2"	7.45	K5 III					16	Std Vel		6K

319 pg #2 Wed/Thurs

Date 1994 Nov 16/17 Observers [illegible] T.A.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CG40588 – 91	HD 273094	23 41 30	+28 09	19 54				4x	.067
CG40592 – 93	"	"	"			0024E	+28 40	2x	.133
CC28022	BIAS (4)								
23	Comp							FeAr Clear	60s
24	HD 187235	19 43 54	+38 09	20 04 16		0357W			837
25	Comp							FeAr Clear	60s
26/27	Comp/Stellar Hartman for 6604A					0400W	+38 23	FeAr Clear	60/60
28/29	Comp/Stellar Hartman for 4475A					0415W	"	FeAr Clear	40/70
CC28030	Comp							FeAr Clear	60s
31	HD 192518	20 10 12	+38 24	20 47 33		0404W			561
32	Comp							FeAr Clear	60
33	BIAS (4)								
34	Comp							FeAr Clear	60s
35	HD 210459	22 05 30	+32 41	21 00 37		0222W			311
36	Comp							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. +4.0°C 70.8% Transparency Conditions ..... FINE 320

Focus 6.83 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

ONLY NEFAR on by now

MAX

Exp. Mtr.	Seeing	Pig. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	2.3"	7.45	K5III		Above 306u slit				Seeing	Dome SSW, Light East wind	
				CASS CCD	1800 l/mm G=6065	306u	6604A	1/2			
								18			
6300	2"	5.77	B8V					19	Telluric Std	AIRMASS = 1.034	10.5K
								20			
3.6°C	Set	6.83	Still					20/21	focus test		
3.6°C (Exp meter Filter) BG 39	Set	6.92		CASS CCD	1800 l/mm G=4556	306u	4415A	22/23		422 0 50 1024 4 1 CCD FMT IDEAL	
								24			
~10K	2.3"	B 5.36	A7IV					25	A shell wide.	S/N 2250/1	
								26			
								1/2			
								26			
13.4K	2.3"	B 4.75	F5III					27	A shell wide		6.2K
								28			

32A pg#3

Emulsion Batches:

Date 1994 Nov 16/17 Observers [Bh/Wde] JN

Date 5.5 386 Time 4.2 secs. a.k.a.d. WWV

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc28037	Comp							FeAr Clear	60s
38	HD222368	233448	+5 05	211345		01 05 W			275
39	Comp							FeAr Clear	60s
40	Comp							"	"
41	HD21364	032142	+9 23	212857		02 28 E			
42	Comp							FeAr Clear	60s
43	Comp							"	"
44	HD37017	053025	-4 34	214043		04 07E			1224
45	Comp							FeAr Clear	60s
46	BIAS(4)								
47	Comp							FeAr Clear	60s
48	HD1061	000948	+8 16	221152		01 37W			810
49	Comp							FeAr Clear	60s
50	HD1061	00 09 48	+8 16	222813		01 52W			733
51	Comp							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 12.8°C ... 74% Transparency Conditions ... Fine 322
But Full Moon

Focus .... 6.92 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39				CASSEG	1800m G=4558	306	4415B	28			1m 2x
12000		V 4.13	F7V					29	Std Vel		6K
								30			
								31	Blk pgm		
20,550		B 3.66	B8p					6c	" "	HBeat 15° FROM FULL MOON SKY Very Clear though	10K
								7c			
								8		South end of nebula	
3700	5"	6.56	B2V					9c	Blk pgm		1.5K
								10c			
								11/2c		CCDT = −100.4°C	
								11			
5900	4"-2"	6.15	A9s					12	Blk pgm	Photocell covered	S/N 180/1
								13			
6200	2"-3"	6.15	A9s					16	Blk pgm	" " "	
								15			

323 pg#4

Emulsion Batches:

Date 1994 Nov 16/17 Observers [B.M.] T.H.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CCD8052	HD1061	00 09 48	+8 16	22 43 04		2 07 W			725
53	Comp							Feat Clear	60s
54	HD1061	00 09 48	+8 16	22 58 10		2 23 W			787
55	Comp							Feat Clear	60s
56	BIAS (4)								
57	Comp							Feat Clear	60s
58	HD37017	05 30 25	-04 34	23 20 20		2 33 E			910
59	Comp							Feat Clear	60s
60	Comp							"	"
61	HD112028	12 48 24	+83 57	23 45 25		9 31 E			398
62	Comp							Feat Clear	60
63	Comp							"	"
64	HD372	00 34 48	+55 59	00 00 17		2 48 W			50
65	Comp							Feat Clear	60s
66	BIAS (4)			00 08					

Spectr. Temp. ..... Dome Temp./Hum. +1.9°C ... 76% Transparency Conditions Fine 3224

Focus ... 6.92 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 472 0 50 1024 4 1 CCDFMT

Exp. Mtr. BG 39	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6,500	2"	G15	A9s	CASSCCD	1800 l/mm G-4558	306u	4475Å	17ci	Bln pgm	Hot pixel at col 826	11.4K ADU
								18ci			
6 500		G15	A9s					19	Bln pgm		
								24			
								1/2			
								5ci			
5000	3"-4"	G5	B2V					6ci	Bln pgm	~~Δx +00 00 45~~ ~~Δδ~~	2.6K
								7ce			
								7ci			
7640	3"-4"	B G25	A1 III	Shell				8ci	Shell Astar Wide	Δx +00 00 45 Indexed Δδ −00 01 15 for south one	5.0K
								10ci			
12K	2	V 223	K0 III					12	Std Vel for Wide	(Fast guiding up & down N-S)	7.5K
								13			
								1/2			

325

Dy #5

Date 1994 Nov 16/17 Observers [Blitzstein] T.G.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC28067	Comp							FeAr Clear	60s
68	HD37017	05 30 25	-04 34	00 11 53		01 52 E			159
69	Comp							FeAr Clear	60s
70	HD37017	05 30 25	-04 34	00 20 05		01 38 E			613
71	Comp							FeAr Clear	60s
72	Comp							"	"
73	HD42111	06 03 48	+2 31	00 37 45		01 57 E			431
74	Comp							FeAr Clear	60s
75	HD42111 B	06 03 48?	+2 31?	00 48 26		01 38 E			
76	Comp							FeAr Clear	60s
77	B/115(4)			01 06					
78	Comp							FeAr	60s
79	HD37017	05 30 25	-04 34	01 11 15		00 43 E			837
80	Comp							FeAr	60
81	Comp							"	"

CCD
Spectr. Temp. −100.5 °C ... Dome Temp./Hum. +1.7°C ... 70.3%H Transparency Conditions. Fine ... s/haze 326

Focus ... 6.92 ... Rel Humidity actually going down

Spectr. Temp. ... Dome Temp./Hum. +1.9°C ... 72%H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
BG 39					1800h G=4558	306	4475A	15			max 404
1200	4"	6.56	B2V					16	Blu pgm	Spectrograph control failed — terminated early.	
								18			
5780	3"							16	Blu pgm		
								5c	[redacted]		
								5c			
6850	3"	5.80	A3V m					17c	A shell Wide		4+
								5c			
4900	2.3"	=69						25	Companion — Also taken by Smt Nov 12		
								5			
								1/2			
								5			
6100	2.4"	6.56	B2V					6	Blu pgm	5' South of slightly Brighter Star.	3.0k
								7			
								7			

327 pg #6

Date 1994 Nov 16/17 Observers [Blaylock] Tuy

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 28082	HD 77190	08 55 54	+28 18	01 35 18		03 48 E			673
83	Comp							Fe Ar Clear	60s
84	Comp							"	"
85	HD 37017	05 30 25	-04 34	01 55 57		00 03 W			911
86	Comp							Fe Ar Clear	60s
87	BIAS (4)			02 13					
88 CC 28107	FLATS x 20			02 14		00 05 W	-4 33	TUNG Clear	13s
108	Comp							Fe Ar Clear	60s
109	HD 37017	05 30 25	-04 34	02 38 01		00 46 W			956
110	Comp							Fe Ar Clear	60s
111	BIAS (4)			02 57					
112	Comp							Fe Ar Clear	60s
113	HD 88195	10 05 09	-7 55 01	03 32 47		03 08 E			714
114	Comp							Fe Ar Clear	60s
115	Comp							"	"

CCD Spectr. Temp. −100.4°C Dome Temp./Hum. +1.9 77% Transparency Conditions Sl. hazy 328

Focus 6.9.2

Spectr. Temp. Dome Temp./Hum. +1.3°C 76%H

max

Exp. Mtr. BG 39	Seeing	Pg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6950	4"	6.07	A8V$_n$	CASS CCD	1800h G=4556	306u	4475Å	8c	A shell wide		4.3
								6			
								5c			
6200	3"-4"	6.56	B2V					6c	Bln pgm		
								5c			
								1/2		CCDT −100.3°C	
								2			13.6 h
								7c			
6350	3"	6.56	B2V					6c	Bln pgm		
								7c			
								1/2		CCDT = −99.6 °C	
								5		Then Topup just in case	
4570	4-8"	B 6.93	A1V					9	A shell Wide	Spectr contr failure during exposure. Should be no problems with this. Just slight delay to get test comparison on.	S/N 170/1
								10			
								10			

329 pg #7

Date 1994 Nov 16/17 Observers [Blanco] T.S.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CCD8116	HD 37017	05 30 25	-4 34	03 42 29		01 52 W			1042
17	Comp							FeAr Clear	60
18	BIAS (4)								
19	Comp							FeAr Clear	60
20	HD 98058	11 11 35	-30 6 18	04 07 50		3 36 E			305
21	Comp							FeAr Clear	60
22	Comp								
23	HP 37017	05 30 25	-4 34	04 20 19		2 30 W			1051
124	Comp							FeAr Clear	60
125									
126	Comp / Stellar	HuA Tm Hn				0 0	+13°	FeAr Clear	40
127	BIAS (4)								

CCD
~~Spectr.~~ Temp. ..-100.4....°C. Dome Temp./Hum. ..... Transparency Conditions ..Slight Haze..330

Focus .....6.92.....

Spectr. Temp. ..... Dome Temp./Hum. +00.7°C 81%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
6100	3"	6.56	B2V		1800 G4558	306	4475	6	Blk pgm		
								5c:			
								1/2			
								7			MAX
7300	4"	B 4.68	A7IVn					8	A Shell Wide		3.2K
								10			
								10			
5300	5-8"	6.56	B2V					6	Blk pgm		
								5c:			
								3/4	Focus test		
T=00.7°	Set	6.92						1/2			
				All to WORM & Perseus.							

Exp

331

Date 1994 Nov 17/18 Observers Km/Snt

Emulsion Batches:
GG 385 FILTER IN STELLAR TRAY
OG 560 " " COMP "

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28128/9	COMP/STELLAR HARTMANN							Fstar Clear	60/60
130	BIAS (4)								
131	COMP							Fstar clear	60
132	BD+57 2735 (VyS211)	23 1P 54	+57 20 00	19 07 19		-0h 37m E			380
133	COMP							Fstar clear	60
134	COMP			19 50 39				"	60
135	AC +69 173	00 ~~21 09~~	~~+68 35 29~~	19 ~~55~~ 21		-0 47 E			830
136	COMP							"	60
137	BIAS (4)								
138-140	FLAT x 3		GG385 FILTER IN COMP FOR FLATS			4h 2m E	+70°	Tung 1/4 Ap	4
141-143	FLAT x 3			"		"	"	"	"
144	COMP		OG 560 FILTER IN		COMP AGAIN			Fstar Clear	60
145	Ac +9 2-34 (VyS356)	00 13 08	09 38 50	20 46 18		0 15 W			920
146	COMP							Fstar clear	60
147	~~BIAS (4)~~								
148	~~BIAS (4)~~								
148-167	FLAT x 20		GG385 FILTER IN COMP FOR FLATS			0h	+41°	Tung 1/4 Ap	3

CCD ~~Spectr~~. Temp. -101.2°C Dome Temp./Hum. 5.7°C / 62.1% Transparency Conditions ... thin cloud & some spots 332

Focus ... 6.90 ... DOME FANS OFF.

Spectr. Temp. ... Dome Temp./Hum. ...

400 0 50 1024 41 ccdfast

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	~~P.H.~~ C1	Program	Remarks	~~Max 400 Quality~~
				CASS CCD	1200 l/mm G=4500	306μ	6563 Å	3/4	FOCUS TEST		
								1/2			
								5			
310		10.05	M2e					6	Km Hα	no obvious Hα emission S/N ~ 65/1	1200
								7			
										390 0 50 1024 4 1 ccdfast	
								8			
300		10.24	M0					9	Km {Hα EU45}	No obvious Hα emission	
								10			
								1/2			
								11		@ 390 ... ccdfast	16K → 15.7K
								12		@ 400 ... ccdfast.	15.7K → 15.3K
								13		415 0 50 1024 4 1 ccdfast	
333		10.4	M0	GG385	IN STELLAR BEAM AGAIN			14	Km {EU45} Hα	(was dyslexic & read off noise instead of a real comp column)	
								15			
								1/2		CLOUDED IN FAST!! FROM THE S.	
								16			13K → 12.1K

333
pg #2

Date 1994 Nov 11/18 Observers Km / Smt

Emulsion Batches:
.....
.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 2816 8	COMP			00 39				Fe Ar clear	60
169	HD 36395 (Vgs 9)	05 26 18	-3 41 00	00 39 53		-1 17 E			160
170	COMP							Fe Ar clear	60
171	BIAS (4)				00 46				
172	COMP								
173	AC +16 777 -16 (Vgs 467)	05 36 15	15 18 54	00 54 50		-1 05 E			080
174	COMP								
175/6	comp / stellar Hartmann					0h	+41° 35'	Fe Ar clear	60/60
178	BIAS (4)				02 00				

CCD Spectr. Temp. -100.4°C Dome Temp./Hum. 7.6°C / 63% Transparency Conditions Thin cloud / thick haze 334

Focus 6.90

CCD Spectr. Temp. -101.2°C @ CLOSE Dome Temp./Hum. 7.2°C / 63.8% @ FOCUS TEST FANS OFF

415 0 50 1024 4 1 adfut

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				"	"	"	"	17			
430		7.97	M1					18	Km Hα		
								19			
								20			
								1/2			
330		10.61	M0					21			
								22		CLOUDED OVER AGAIN TOPPED UP POWER BEFOREHAND	
								23/24	FOCUS TEST		
								1/2			
		All to	WORM	&	Perseus						

335 pg # 1

Date 1994 Nov 18/19 Observers Km/Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28178/9	COMP/STELLAR HARTMANN							FeNe clear	20/20
180	BIAS (4)				22 17				
181	COMP							FeNe Clear	30sec
182	HD 222404 (Cap)	23 35 14	77 04 27	22 29 57		2 27 W			97sec
183	comp							FeNe Clear	30
184	COMP							FeNe clear	30
185	HD 4817	00 45 18	+61° 16'	22 46 32		1 45 W			780sec
186	COMP								30
187	BIAS (4)				23 22				
188	COMP								30
189	HD 6130	00 57 24	60° 32'	23 28 55					480
190	COMP			23 38 50					30
191	COMP			23 48 49					30
192	HD 10465	01 37	+48 01'	23 50 50		1 50 W			600
193	COMP								30
194	COMP								30
195	HD 23475	03 40 24	+65 13'	00 12 07		0h 2m W			240

CCD
Spectr. Temp. -100.4°C Dome Temp./Hum. 9.9°C / 45.4% Transparency Conditions bright moon, ~~fair~~ fine 336

Focus 6.93 ~~NE FANS ON~~ DOME FANS ON WINDY!

Spectr. Temp. ..... Dome Temp./Hum. 430 0 50 1024 41

Exp. Mtr. Filter	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	Cᵢ	Program	Remarks	Quality
				CAGS CCD	600 g/mm G=2622	150μ	4200	3/4 Cᵢ			
								1/2			
								5 Cᵢ			
4000		3.21	K1 ~~IIIa~~					6	Km MK Std	Tel E side.	13K
								7			
								8			
2100		6.07	K2Ib	CN-2				9	"	Tel E Side.	
								10			
								11			
2475		5.92	F0II					12		Tel E Side	
								13			
								14			
175		7.00	M2SII					15		Tel E Side	500 averaged
								16			
								17			
2700		4.47	M2 II ab					18		Tel E Side	

337 pg #2

Emulsion Batches:

Date 1994 Nov 18/19 Observers km./Smt

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
196	COMP							FeNe clear	30
197	BIAS(4)				00 19				
198	COMP			05 31 30				"	30
199	HD27022	04 11 18	+64 54	00 33 42	00 08 E →				300
200	COMP							"	30
201	COMP							"	30
202	HD27397	04 14 18	+13 48	00 51 04		$0^h\ 14^m$ W			510
203	COMP							"	30
CG40582-5	HD29587	04 34 30	+41 57						.067
86788	"								.133
204	BIAS(4)				01 29				
205	COMP							"	30
206	HD36512	05 27 06	-07 22 31	01 32 38		$0^h\ 14^m$ E			612
207	COMP							"	30
208	COMP								

Spectr. Temp. ..... Dome Temp./Hum. 8.0°C / 47.9% Transparency Conditions . bright moon but fine. 338 wind dying down – a few low clouds → quite gusty again by seeing test end.

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. 7.3°C / 56.7% @ end of seeing test

Exp. Mtr. FILTER	Seeing	~~Rtg.~~ ✓ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CCAMBDA	~~P.H.~~ C.	Program	Remarks	max 400 Quality
				CASS CCD	600 l/mm G = 2622	150μ	~4200 Å	19			
								1/2		SE FAN TURNED OFF	
								20			
2360		5.3	G5IIb					21	Km MKStd.	TEL W side	1200
								22			
								23			
3520		5.59	F0IV					24	"	close to moon, subtract sky for sure.	1000
								25			
185, 150, 105, 190		7.29	dG2					—	SEEING TEST	through cloud at times tried for tides	
192, 255, 167		"	"					—		DOME W, W wind, mostly cloudy, dry, near moon, sky big bright!!	
								26			
3000		4.62	B0V					27	Km MK Std.	Through clouds at beginning	1280
								28			
								29			

339 pg #3

Date 1994 Nov 18/19 Observers Km / Smt

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
209	HD 36673					$0^h 5^m$ E			90
210	comp							FeNe Clear	30
211	comp							"	"
212	~~HD 37128~~ HD 37160	05 31 ~~08~~ 24	+09 14 ~~-01 15 59~~	02 16 45 ~~02 00 15~~		$0^h 20^m$ W			300 ~~25~~
213	comp							FeNe Clear	30
214	comp							"	30
215	HD ~~37100~~ 37128	05 31 ~~08~~	~~-01 15 59~~ 09 14 00	02 29 16		$6^h 29^m$ W			24
216	comp							"	30
217	BIAS(4)				02 33				
218	comp								30
219	HD 53138	06 58 51	-23 41 13	02 37 20		0 48 E			120
220	comp								30
221	comp								30
222	HD ~~54605~~	07 04 20	-26 14 04	02 46 33		$6^h 44^m$ E			120
223	comp								

Spectr. Temp. ..... Dome Temp./Hum. 7.0°/52.4% Transparency Conditions partly cloudy → fast. cloudy 40
low clouds

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Comparison Filter Exp	Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max ADU Quality
90	4000		2.58	F0 Ib	CATS CCD	600 l/mm G=2622	150μ	~4200 Å	30	Km MK Std.		9K
30									28			
									5			
300	2850		4.09	K0 III b	CN_2				6	"	through cloud.	5000
27	~~2800~~		~~1.70~~	~~B0 I~~								~~6700~~
30									7			
									8			
24	4,000		1,70	B0 I	CN_2				9		through clouds.	11K
30			~~4.09~~	~~K0 III b~~	CN_2				10			
									½			
30									11			
120	3500		3.02	B3 I					12			6850
30									13			
									14			
10	3500		1.84	F8 Ia					15			9200
									16			

3m #64

Date 1994 Nov 18/19 Observers Km / Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
224	comp							Fe Ne clear	30
225	HD 58350	07 20 08	-29 06 29	02 57 12		0^h 49^m E			120
226	comp								30
227 ~~226~~	comp								30
228	HD 62345	07 38 25	24 38 16	03 10 12		0 50 E			500
229 ~~228~~	comp								30
230 ~~229~~	comp								30
231	HD 62509	07 39 12	28 16 04	03 30 24		0 33 E			400
232	comp								30
233	BIAS (4)				03 40				—
234	comp								30
235	HD 69267	08 11 06	+9° 30^m	03 57 49		0 32 E			640
236	comp								
~~237~~	~~comp~~								
~~238~~	~~HD 103287~~	~~11 48 34~~	~~54 15 07~~						

Spectr. Temp. ..... Dome Temp./Hum. 6.7°C / 55.5% Transparency Conditions . partly cloudy 342
→ completely overcast with thick clouds

Focus ..... 6.93 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	max ADC Quality
								17			
3900		2.45	B5I					18			6200
								19			
		~~3.57~~	~~G8III~~					20			
2360		3.57	G8III					21			max 5.8K
								22			
								23			
3136		1.14	K0III					24			6.8K
								~~25~~			
								1/2			
								26			
1885		3.52	K4III	Ba0.5				27			2800
								28			
								~~29~~			
		~~2.44~~	~~A0V~~					~~30~~			

38B
pg #5

Date 1994 Nov 18/19 Observers Km / Smt

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC28237-56	FLAT x 20					0^h	$+40^\circ$	Tung clear	10
57/58	COMP/STELLAR HARTMANN					"	"	FeNe clear	20/40
59	BIAS(4)				04 56				

CCD Spectr. Temp. -101.3°C Dome Temp./Hum. 6.3°C/55.3% @ FOCUS TEST Transparency Conditions too cloudy to see anything. 348

Focus 6.93

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
10				CASS CCD	600(C) G=26 22	150μ	~4200 Å	29		spec. controller reset	13.6K →12.4K
20/40								3/4	FOCUS TEST		
								1/2			
		Backed up to Perseus & WORM									

34 I
pg #1

Date 1994 Nov. 19/20 Observers Km / Smt

CSS 3886 CLOCK 4s AHEAD OF WWV

Emulsion Batches:
GG. 385 FILTER FOR STELLARS & FLATS
GG. 560 FILTER FOR COMPS

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC28260/61	COMP/STELLAR HARTMANN					0^h	+41°	Fe Ar clear Ap	60/60
62	BIAS(4)			17 40					
63	COMP							"	60
64	BD+68 946 5Vgs 3223	17 36 56	+68 24 47	18 01 32		$4^h 10^m$ W			385
65	COMP							"	60
66	COMP							"	"
67	AC+62 26749 (Vgs 62C)	17 34 30	+61 45 00	18 19 45		4^h 32 W			600
68	COMP							"	60
CC40589-92	MD214199	22 31 36	+36 15 00						.067
93/94	"	"	"		19 00	$0^h 1^m$ W			.133
69	BIAS(4)			19 02					
70	COMP							Fe Ar clear Ap	60
71	AC+55 19225 5Vgs 4408	02 49 12	+55 02 32	19 19 09					1100
72	Comp								60
73	~~Comp~~ BIAS(4)			20 08					
~~74~~	~~AC+58 20564 Vgs 4408~~	~~03 08 51~~	~~+59 48 08~~						

CCD
Spectr. Temp. ..... −100.4°C ..... Dome Temp./Hum. 6.5°C / 54.5% Transparency Conditions ..clear..dry..→ increasing cloud 346

Focus ..... 6.89 .....

Spectr. Temp. ..... Dome Temp./Hum. 5.6°C / 55.4%

FANS OFF

400 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	~~Pkg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	MARK IV Quality
				CASS CCD	1200 ℓ/mm G = 4500	30μ	6563 Å	3/4	FOCUS TEST		
								1/2			
								5			
400		9.15	MT		S/N > 100			6	Km §V45§ Hα emission search	no obvious. close to hot!	1600
								7			
								8			
330	2"-3"	9.95	MITe					9	"		1250
								10			
183, 185, 175, 161		7.50	KS III					—	SEEING TEST	Dome SW, W breeze, clear; above 30μ, 70% catwalk	
77, 212		"	"					—	"	"	
								1/2			
								11			
~~200~~ 198								12		increasing cloud.	
								13			
								1/2			
		~~10.0~~	~~MD~~								

347
pg#2

Date 1994 Nov 19/20 Observers Km / Smt

Emulsion Batches:
@ 4200 Å : 1B6 39 FILTER
USED IN EXP. MTR

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 28274-83	FLAT x 10 ~~COMP~~		GG 385 FILTER USED			0h	+42°	Tung ¼ Ap	3
84/85	COMP/STELLAR HARTMANN		06 560 FILTER USED			"	"	Fe+Ne clear	60/60
86	BIAS(4)			20 43					
87/88	COMP/STELLAR HARTMANN					"	"	FeNe clear	20/50
89	BIAS(4)			21 23					
90	COMP							FeNe clear	30
91	HD22 4427	23 52.7	+24° 03'	21 37 29	01 25 W →				450
92	COMP							Fe Ne clear	30
93	COMP							"	30
94	HD 6903	01h 4.5m	+19° 7'	21 53 35		0h 49m W			1622
95	COMP							"	30
96	BIAS(4)			22 23					0
97	COMP							"	30
98	HD10761	01 40 06	+08 39	22 29 26					455
99	COMP							"	30

Spectr. Temp. ..... Dome Temp./Hum. 4.7°C / 57.8% Transparency Conditions .. mostly cloudy 348
@ Focus TEST.

Focus ....6.89 / 7.05 .....
@ 6563 Å @ ~4200 Å

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	~~P.H.~~	Program	Remarks	Quality
				CASS CCD	1200 ℓ/mm G = 4500	30μ	6563 Å	14			13,3 K → 12.4K
								15	FOCUS TEST		
								1/2		400 0 50 1024 4 1 CCDFMT	
36 39 FILTER				CASS CCD	600 ℓ/mm (c) G = 2622	150μ	~4200 Å	3/4	FOCUS TEST	430 0 50 1024 4 1 CCDFMT	
								1/2			
								16			
3170	4.66	M3III						17	Km MK Stds.	THROUGH CLOUD	MAX ~5700
								18			
								19			
2880	5.55	G0III						20	"	THROUGH CLOUD	5550
								21			
								1/2			
								22			
4000	4.26	68III						23	"	THROUGH CLOUD	10 K
								24			

347
p.13

Date 1994 Nov 19/20 Observers Km/Smt

~~Emulsion Batches:~~
BG 39 FILTER IN
~~EXPOSURE METER~~

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28300	COMP							FeNe clear	30
01	HD 13611	$02^h\ 7.7^m$	$+8^\circ\ 23'$	22 44 50		$0^h\ 30^m$ W			1175
02	COMP							"	30
03	BIAS(4)				23 09				–
04	COMP							"	30
05	HD17709	02 45 24	+34 39 00	23 14 27					1800
06	COMP			23 46 42				"	30
07	COMP							"	30
08	HD 23180	$03\ 38^m.0$	$+31^\circ\ 58'$	00 04 20					120
09	COMP							"	30
10	COMP							"	"
11	HD17918	02 47 36	+16 05 00	00 18 28		$1^h\ 24$ W			1223
12	COMP							"	30
13	BIAS(4)				00 42				–
14	COMP							"	30

Spectr. Temp. -101.4°C Dome Temp./Hum. 3.3°C / 63.7% Transparency Conditions .. cloudy → clearing ... 350

Focus 7.05

Spectr. Temp. ..... Dome Temp./Hum. .....

430 0 50 1024 4 1 CCDFMT

Exp. Mtr. FILTER	Seeing	~~Pig.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CCAMBDA	~~P.H.~~ CI	Program	Remarks	Quality
				CASS CCD	600 l/mm (c) 6 = 2622	150μ	~4200Å	25			
3000		4.37	G6 III					26	Km MK stds.		6400
								27			
								1/2			
								~~28~~			
2190		4.53	K7 III					29	"		MAX 3.6K
								30			
~~4200~~								31			
4200		3.83	B1 III					32	"	clear now	MAX 11.6K
								33			
								5			
4000	3"	6.31	F3 III					6	"		
								7	"		↑ 9K
								1/2			
								8			

35 p.4

Date 1994 Nov 19/20 Observers Km / Smt

Emulsion Batches:
B6 39 FILTER IN
EXPOSURE METER

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28315	HD26015	04 02 00	+14 54	00 46 48		$0^h 35^m$ W			1014
16	COMP							FeNe Clear	30
CG40545-98	HD29587	04 34 30	+41 57						.067
CG40599/600	"	"	"			$0^h 12^m$ W			.133
17	COMP							FeNe Clear	30
18	HD27022	04 11 18	+64 54	01 28 02		$0^h 58$ W			723
19	COMP							"	30
20	BIAS(4)			01 43					-
21	COMP							"	30
22	HD27383	$04^h 14 12$	$+16^\circ 15$	01 52 36		$1^h 45^m$ W			2000
23	COMP							"	30
24	COMP							"	"
25	HD27397	$04^h 14 18$	$+13^\circ 48$	02 34 33		$2^h 09^m$ W			878
26	COMP							"	30
27	BIAS(4)				02 57				

Spectr. Temp. ..... Dome Temp./Hum. 28°C/66.9% Transparency Conditions ... fine ... bright - full moon

Focus ..... 7.05 .....

Spectr. Temp. ..... Dome Temp./Hum. 23°C/69.2% @ end of seeing test.

430 0 50 1024 4 1 CCDPMT

Exp. Mtr. FILTER	Seeing	V ~~Dia.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~ CLAMBDA	~~P.H.~~ C.	Program	Remarks	MK HDV Quality
4000	3-4"	6.01	F3V	CASS CCD	600 ℓ/mm C G = 2622	150μ	~ 4200Å	9	Km MK Std.		8.6K
								10			
172, 222 76, 173 241, 120		7.29	dG2	EEV CCD				-	SEEING	Dome W, no wind, clear, above 150m.	
		"	"					-	TEST		
							ACTUALLY FOUND TO BE 4220 Å	11			
9400		5.27	G5IIb					12	Km MK STDS		11.7K
								13			
								-			
								14			
2845		6.89	F7V + G3V					15	"	CLOSE TO MOON	6.6K
								16			
								16			
4900!		5.59	F0III					17	"	CLOSE TO MOON	11.3K
								18			
								½			

353
p. 5

Date 1994 Nov 19/20 Observers Km/Smt

Emulsion Batches:
B6 39 FILTER IN EXP. MTR.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC28328	COMP							FeNe clear	30
29	HD27524	04h 15 36	+20° 49	03 00 06		2h 39m W			1300
30	COMP							"	30
31	COMP							"	"
32	HD30652	04h 44 24	+6° 47	03 29 23		2h 21m W			130
33	COMP							"	30
34	COMP							"	"
35	HD36512	05h 27 06	-07° 23	03 40 40		1h 55m W			423
36	COMP							"	30
37	BIAS(4)				03 54				
38	COMP							"	30
39	HD37018	05h 30m 24	-04° 54	03 56 03		2h 5m W			300
40	COMP							"	30
41	COMP							"	"
42	HD39400	05h 47m 12	+01° 50	04 12 10		2h 6m W			465
43	COMP							"	30
			CONTINUED IN NEXT BOOK — #79						

Spectr. Temp. ..... Dome Temp./Hum. 2.0°C / 71.6% Transparency Conditions bright (near) full moon, clear 352
increasing thin cloud/haze.

Focus 7.05

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS STILL OFF.

430 0 50 1024 4 1 CCDFMT

Exp. Mtr.	Seeing	V ~~Ptg.~~ Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	~~P.H.~~ Ci	Program	Remarks	Quality
	3"-4" ↓			CASS CCD	600 ℓ/mm C G=2622	150μ	4220Å	19			
2470		6.80	F3V					20	Km MK STDS.	VERY CLOSE TO MOON	9900
								21			
								22			
4220		3.19	F6V					23	"		10.2K
								24			
								25			
4000		4.62	B0V					26	"	THROUGH HAZE, STILL CLOSE TO MOON.	11.2K
								27			
								28 1/2			
4000	4"-5"	4.59	B1V					29	"		10.6K
								30			
								5			
4000	4"	4.78	K1.5IIb					6	"		6.8K
								7			

Emulsion Batches:

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Date ..... Observers .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex